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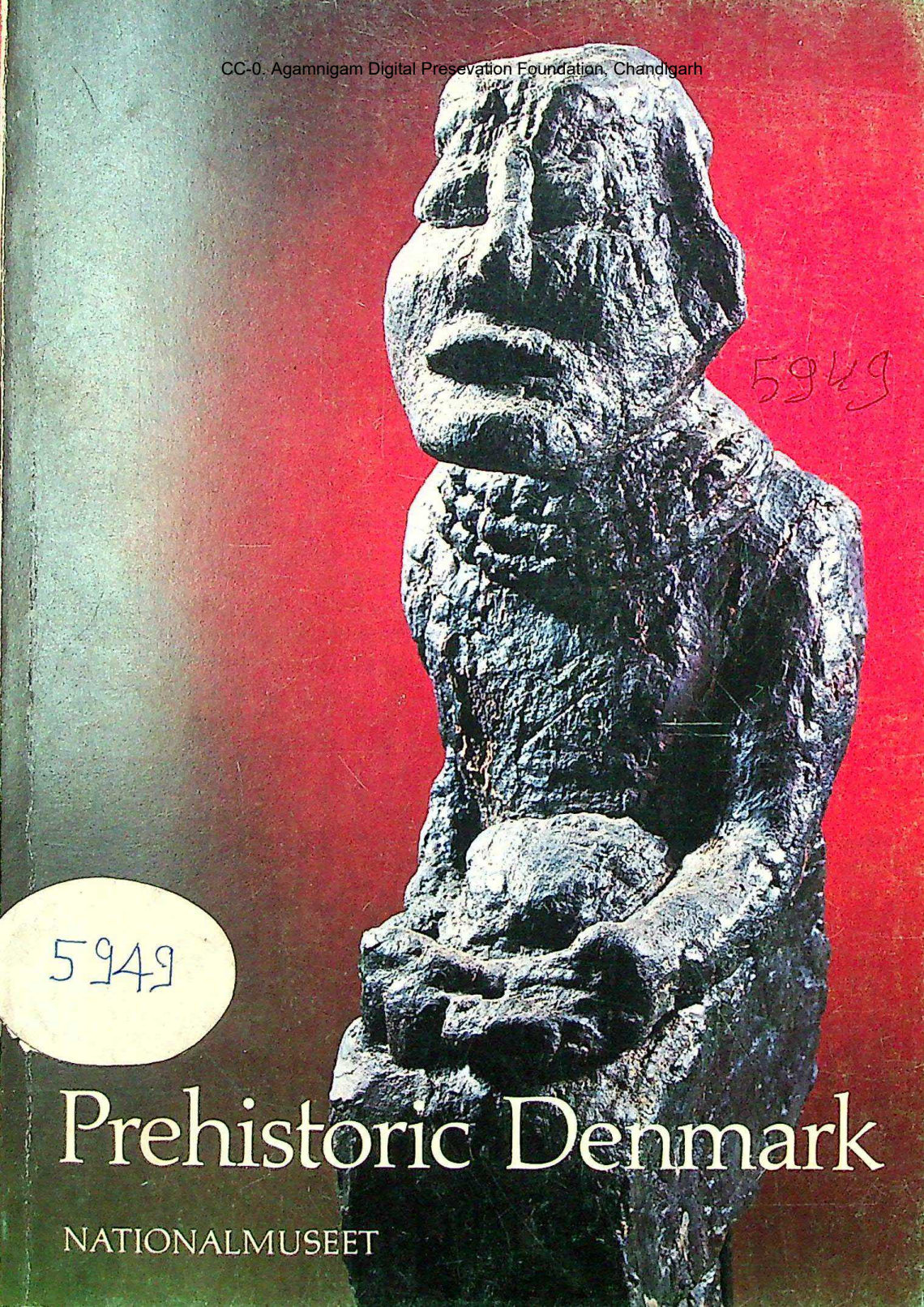

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Prehistoric Denmark

NATIONALMUSEET

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GUIDES TO THE
NATIONAL MUSEUM

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PREHISTORIC DENMARK

COPENHAGEN

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Photos: Lennart Larsen e.a.
Lay-out: Mogens Poulsen
Printed by Fyens Stiftsbogtrykkeri
Copyright © The National Museum, Copenhagen 1978
ISBN 87-480-0168-6

Cover: Wooden statue from Rude Eskildstrup bog, Zealand (Germanic Iron Age)

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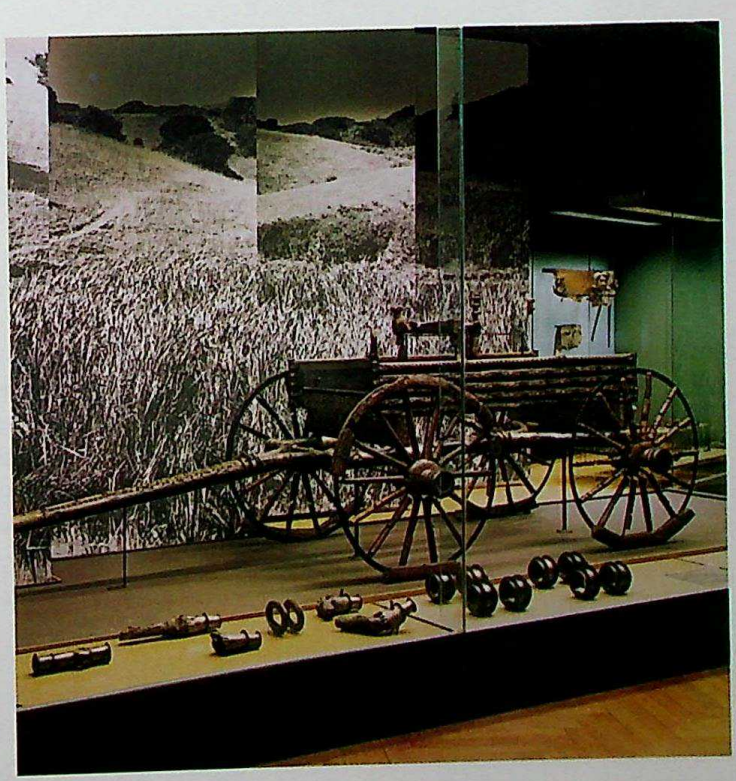
THE STONE AGE

Man has always taken advantage of nature in order to survive. His strength lies in his ability to discover, invent, and experiment. Making and using fire, and shaping blocks of flint into tools are the results of Man's reason. Sometimes, inventions disturb nature's balance between life and death. Inventions can also destroy that balance.

These words stand at the entrance to the National Museum's exhibition on prehistoric Denmark, which tells of the life of



The exhibition ,,Danish Prehistory" has for some years been under reconstruction. Picture from part of the re-opened collection.

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prehistoric man in this country in the days before it was united to form the present kingdom.

The finds excavated by archaeologists, or discovered by chance during agricultural work, open for us a perspective thousands of years long. They tell not of individual people, but of human society and of its interplay with the forces of nature. They tell the story of existence and survival.

About two million years ago human beings were restricted to a small part of the world somewhere in Africa. They were a different species from ourselves, but made use of tools in their struggle to exist. They spread slowly across the tropics from the Atlantic to the Pacific oceans.

Somewhat over a million years ago conditions of life began to alter as a result of climatic changes. Enormous areas were periodically covered with ice, but there were probably even longer periods between without ice.

Meanwhile mankind continued to spread, new species appeared and others vanished. Some adapted to life in a cold climate, and about 35 000 years ago the species to which all living people now belong became the only one on the earth.

The story of Man's long journey through prehistoric time can be told only with the help of the material traces and remains people have left behind. Many different scientific methods must be used to make these silent witnesses tell what they know.

One of the first questions one always asks is, ,,How old is it?''. Here modern Physics has brought new methods to bear. One of the most important of these is the carbon-14 method. Carbon-14 is an isotope that is taken up by all living plants and animals, but slowly breaks down after the organism ceases to live. By measuring the carbon-14 remaining it is possible to assess the age of dead organic material – wood or bone for example. It has recently been discovered that many earlier carbon-14 datings need to be corrected, and it is these so-called calibrated dates that are made use of in the exhibition ,,Prehistoric Denmark''.

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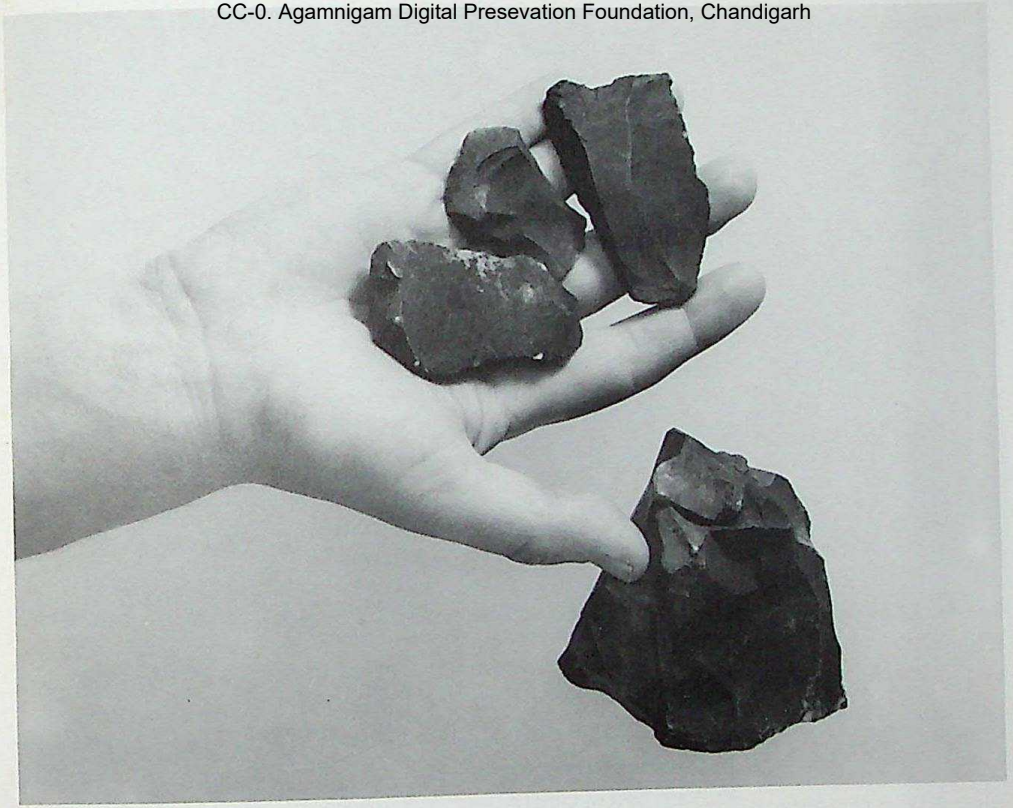

The earliest remains of human activity so far found in Denmark. Coarsely flaked tools from the next-last interglacial, found at Vejstrup in south Jutland. Room 1.

The First Traces of Man in Denmark

Room 1. Until 7500 B.C.

In Denmark three ice ages succeeded one another, during which the country was uninhabitable. During these glacial and the intervening interglacial periods many ice-free areas in other parts of Europe were inhabited. Present-day Denmark could be lived in only in the inter-glacial periods, and to some extent also in the last glacial period, when western Jutland was free of ice.

In other parts of Europe there are many finds from the hunting peoples of this time, and in Denmark we even have two small discoveries. The first was made at Vejstrup in southern Jutland, and comes from a geological layer dating in all probability from the second-last interglacial period,

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i.e. from between 250 000 and 200 000 years ago. Only coarsely worked tools were found.

The presence of people in the last interglacial is shown by some fallow deer bones, split to get at the marrow, that were found at Hollerup in Jutland.

While the edge of the great ice sheet still stood in Jutland people may have come for short periods – perhaps only occasional summer hunter excursions after reindeer – from which a flint arrowhead found at Bjerlev is the only trace we have.

About 14 000 years ago began the great improvement of the climate that brought the last ice age to an end. Where there before had been ice, now lay a landscape moved and shaped by the glaciers, a continent covered by tundra where reindeer grazed – and people followed in the tracks of the reindeer. The population was still very small. Various studies have shown that an area the size of Denmark could only have supported a couple of hundred people – that was all the niggardly environment could feed.

The only finds from this period of tundra and reindeer are a few artifacts of reindeer antler.

The climate only changed slowly. Cooler periods alternated with milder ones, and one of the country's earliest known settlement sites, at Bromme in western Zealand, can be dated to a warm phase at around 9 500 B.C. A hunting expedition had spent some time on a sandy headland by a fresh-water lake and left behind hunting weapons, and tools for cutting up carcasses and working bone. There followed a cold phase which again changed the conditions of life for men and animals, but at about 8 400 B.C. there was a sudden marked rise in the temperature, which in the course of a short time completely altered the face of the landscape.

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Incised human figures on an aurochs bone. Found at Ryemarksgård on Zealand, ca. 7500–6000 B.C. Room 1.

Hunters, Fishers, and Food-Gatherers, the People of the Great Forest

Room 1. Ca. 7 500–6 000 B.C.

The rise in temperature resulted in the spread northwards of birch and Scots pine so that they covered the continental area of which Denmark was a part. At about 7 000 B.C. pine was the commonest tree, with a rich undergrowth of hazel in which lived aurochs, elk, roe deer, red deer, wild pig, bears, and wolves.

This was the continental period, when Denmark was connected by land with both the British Isles and the Scandinavian peninsula. The Baltic was a freshwater lake with its outlet through the present Belts.

The hunting groups lived in the forest. They were constantly on the move, because, despite the amount of game, it was not possible to rely on having enough food at any one place the year around, and by moving between seasonal stations they could get enough to eat and avoid the famine that otherwise would threaten their existence. They preyed not only on the animals of the forests and waterways, but

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Amber sculptures of some of the animals hunted, ca. 7500–4200 B.C. Room 2.

also ate many kinds of berries, plants and roots, including especially hazelnuts.

The first part of the period is named after a site at Klosterlund on Bølling lake in Jutland, but we are given little insight into hunter-fisher society's way of life before the succeeding Maglemose period, which is named after a site excavated many years ago at Mullerup in the bog of Maglemose in western Zealand. It is a typical site because of being situated beside a lake which later grew into a peat bog. Here, as at many other east Danish sites, the hard water has preserved large numbers of the bone implements that were of such importance in the hunters' and fishers' struggle to exist.

In this period we get our first glimpse of the people's art, in the form of small amber sculptures and as geometric patterns or, less often, schematised human figures, scored on various kinds of tool.

The most important things to see

Room 1. Glacial periods, interglacial periods, the melting of the ice, and the Maglemose period.

1 Flint implements found in a sand-pit at Vejstrup in a geologically dated stratum indicating the presence of human beings in what is now Danish territory probably as early as in the penultimate interglacial.

2 Scattered finds from the reindeer period.

3 Flint tools from Bromme on Zealand, one of Denmark's earliest settlement sites. From the melting (late glacial) period.

4–5 Hunting implements of the Maglemose period. Paddles, bows and arrows.

8–9 Ornamented objects of bone and antler, and the earliest human figures found in Denmark.

10 Skeleton of a wounded aurochs found near Vig, Zealand. After an encounter with some hunters, the animal died in a lake, which later grew into a peat bog. On floor of case various artifacts of aurochs bone.

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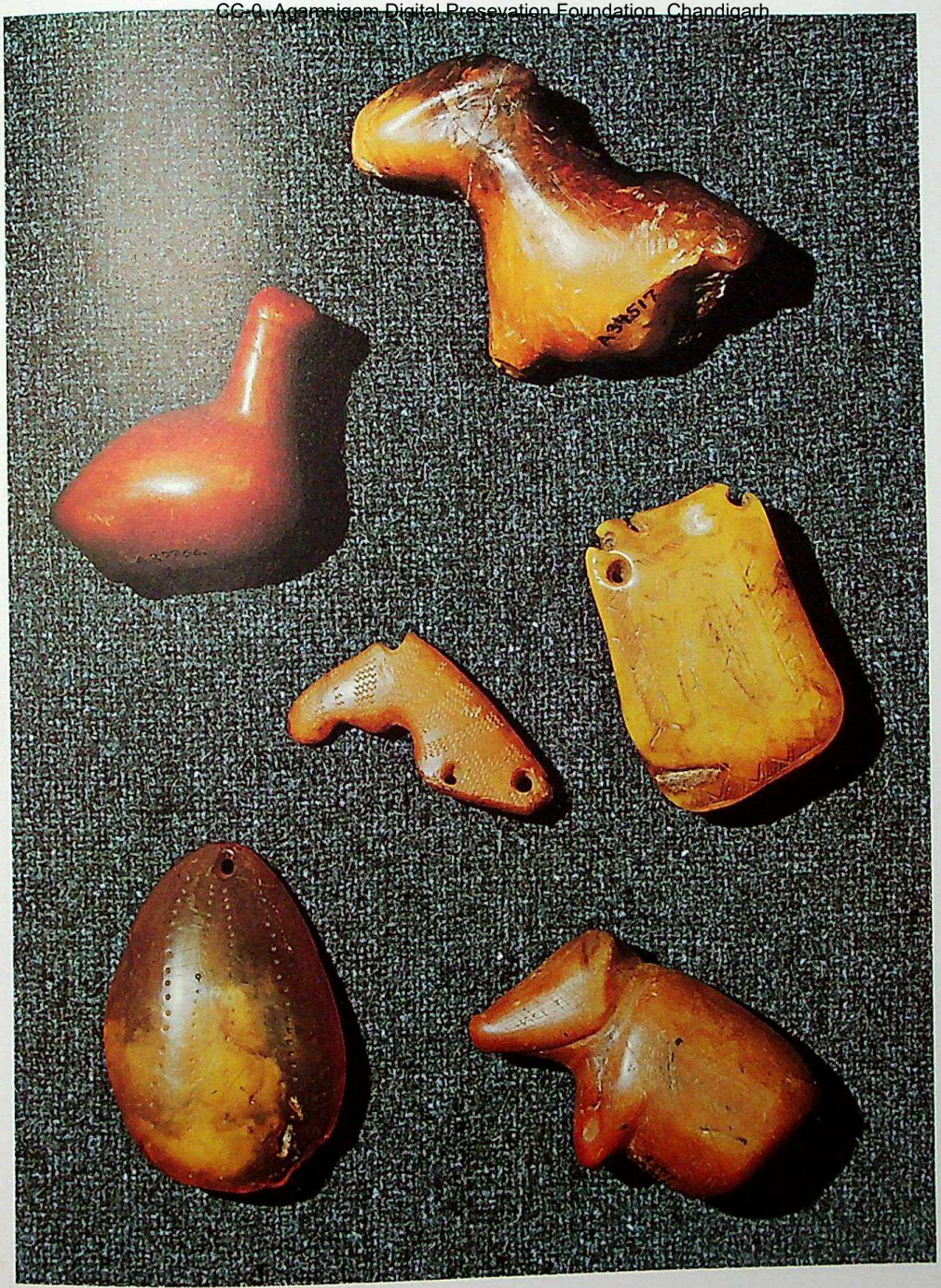

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Hunters Between Desiduous Forest and Sea

Room 2. Ca. 6 000–4 200 B.C.

As the remaining areas of ice melted, the earth's crust rose, freed of their weight, but simultaneously the quantity of water in the sea became larger. The sea rose faster than the land, and large parts of the old continent were under water by 5 500 B.C.

The climate became warm and damp, and deciduous forests grew everywhere with lime as the commonest tree. Under its leafy canopy the rich undergrowth died out, and the wild game was forced to seek food at the edge of the forest. Elk and wild ox became rare, but red deer and wild pig thrived.

The hunters made their abode by the bays and creeks of the coastline, where they were sheltered from the sea and the forests gave protection from behind. Inland they lived alongside waterways and marshes at the places where their predecessors also had hunted. Using an increasingly devel-

At a site of the hunting people at Dyrholmen on Djursland have been found human bones with incisions on them that show that cannibalism was practised at about 4500 B.C. Room 2.

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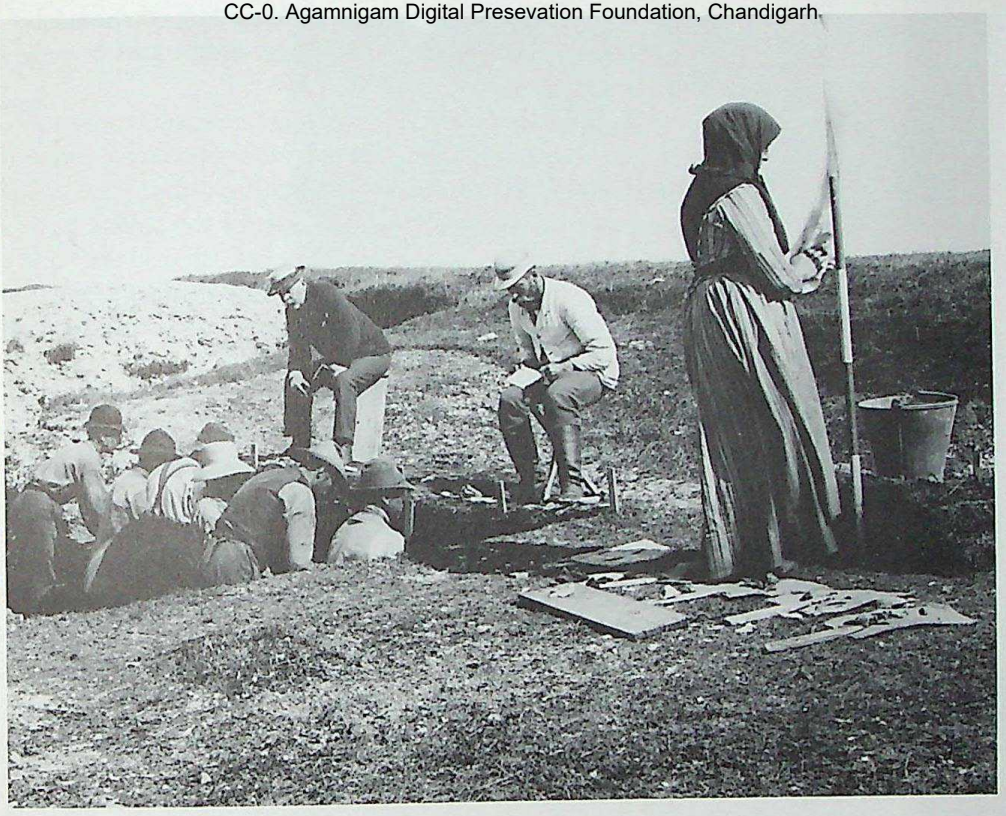
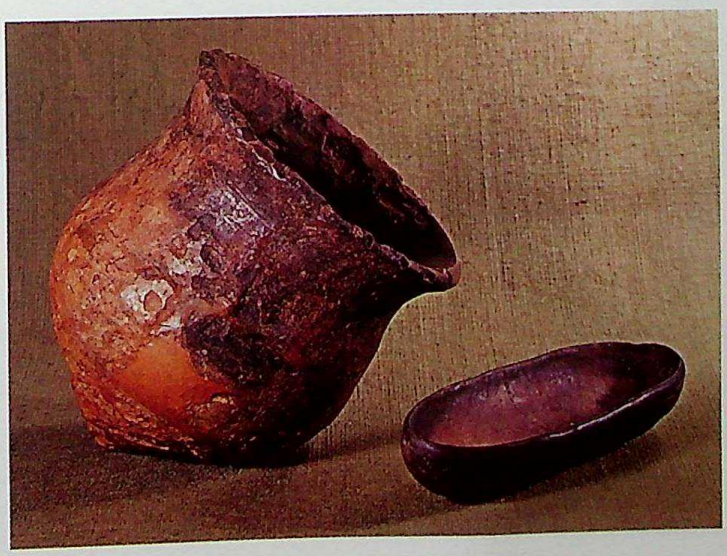


From the excavation of the kitchen midden at Ertebølle in Himmerland in about 1895.



The earliest pottery in Denmark. At about 4700–4600 B.C. the hunting population began, probably under the influence of farming cultures further south, to make pottery in the form of blubber lamps and pointed-base jars for keeping food in. Room 2.

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oped range of hunting equipment they helped themselves from Nature's larder, which had never before had so wide a choice to offer.

At several sites in the Zealand bog of Store Åmose there have been found traces of the hunters who lived there at about 6 000 B.C., especially at an important site called Kongemose, from which the first part of the period has its name. The later part is called the Ertebølle period after a site on Limfjorden. The Ertebølle period was the last one when hunting, fishing, and food collecting were the whole basis of Man's existence in Denmark.

Among the many settlement sites known from between 6 000 and 4 200 B.C., the kitchen middens are the most famous. They are layers of rubbish that accumulated at and beside the settlements. Their bulk is made up mostly of mollusk shells (oysters, mussels, clams – about 10 000 shells to the cubic meter) but their content of mammal bones shows the importance of large animals in the diet of the inhabitants, although birds and fish were eaten as well. The finds also include pottery in the form of thick-walled vessels with pointed bases and of shallow oval bowls, which were probably blubber lamps. There are a few indications of cannibalism.

A new insight into the life of the people of this age has been given by the recently-excavated cementery at Vedbæk, north of Copenhagen. There 22 individuals were buried, among them men, women, and children. The study of the skeletons reveals various aspects of life in those days, such as the high child mortality, the level of nutrition, and the diseases that plagued the inhabitants.

The most important things to see

Room 2. Kongemose and Ertebølle cultures.

4 Ornamented bone and antler implements from the Kongemose culture.

5 Grave found during the deepening of Korsør harbour. The skeleton lay on and was covered by layers of bark, preserved only at the head of the grave, where the excavation was carried out under archaeological supervision. The grave goods was a large flint blade.

6 A boomerang from a site on Brabrand lake: arrowhead (chisel-ended type) with shaft: a deer rib with a flint arrowhead embedded in it.

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One of the graves from the hunter culture's cemetery at Bøgebakken near Vedbæk, north of Copenhagen, ca. 5000 B.C. The grave held the skeletons of a ca. 20 year old woman and a newborn infant. The woman's clothing had been decorated with teeth of red deer and wild pig, and with the shells of a little brackishwater snail. Room 2.

7 Fish trap of withies. The construction is essentially the same as today's.

8 A block taken out of the 150 meter long and up to two meter deep kitchen midden at Ertebølle, which the period is named after. It gives a good impression of what kind of rubbish a kitchen midden consisted of and how it also contained complete and fragmentary implements.

9 From a settlement site at Dyrholmen in Djursland. Split human bones and skull bones with cut marks indicating that cannibalism was practised.

10 One of our earliest pieces of pottery, probably from a blubber lamp.

11 Flint technique.

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13 Graves from the earliest Ertebølle culture, found at Vedbæk, north of Copenhagen. Surprising features were the use of ochre, the ingenious dress ornaments of animal teeth (mainly red deer) and mollusk shells, and the use of antlers in the burials. One of those buried had been killed with an arrow.

14 Stylised animals of amber, probably with the magic purpose of bringing the hunter success.

The First Farmers

Rooms 3–6. Ca. 4 200–2 800 B.C.

About 6 000 years ago occurred one of the greatest changes in our history. Agriculture and stock keeping were adopted by the inhabitants. There is still discussion as to how the change to this new means of subsistence took place, but it is clear that the transition from a hunter-fisher existence only happened slowly. The first agriculturalists continued to supplement their diet with hunting, fishing, and food gathering. In this way age-old traditions continued within a new framework.

So long as Man lived on wild animals and plants alone, he was a part of Nature's order, but the beginning of farming changed this. Man began himself to create food – in the form of his crops of corn and the flesh of his tame animals. More mouths could be fed, and the population increased drastically.

The land was covered by a thick forest of lime, oak, and elm. At about 4 000 B.C. the first farmers began to take land from the forest. Their tool was the long, heavy flint axe, with which they felled trees and scrub. They burned the trunks and branches and sowed their corn in the fertile ash.

Botanical studies have shown that the first farmers made room for themselves in the forest in this way. It is called swidden agriculture. When the soil after some years was exhausted, they could start again on a new piece of forest, while the abandoned fields would grow to grass, where the cattle could graze until the forest again closed in.

Throughout the forest-clad landscape there now appeared clearances in which villages were established. Many people

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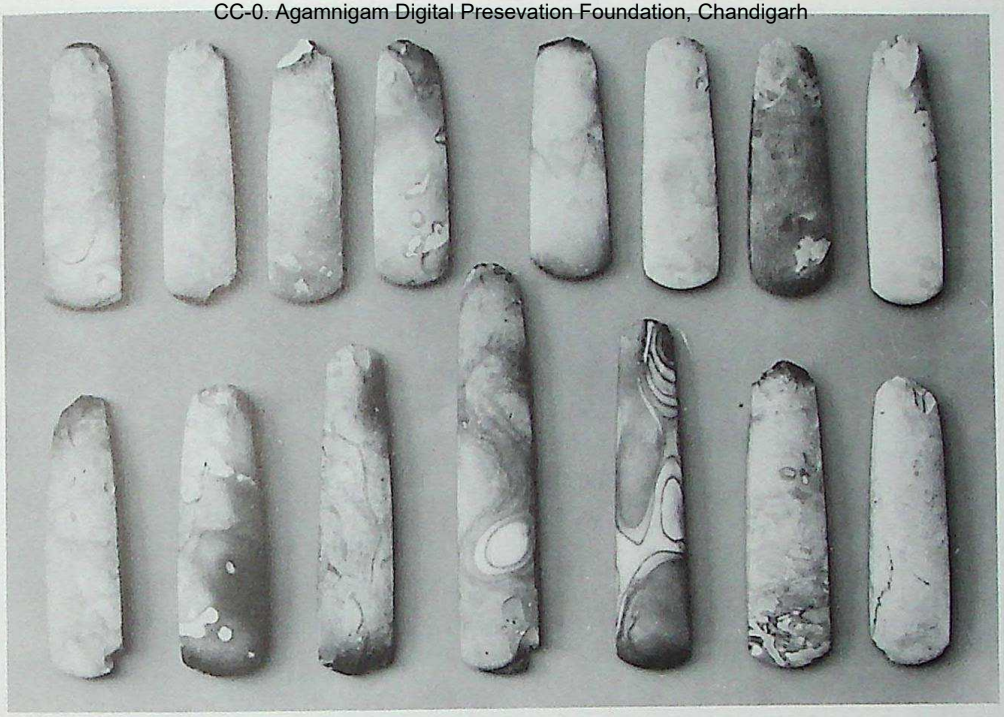
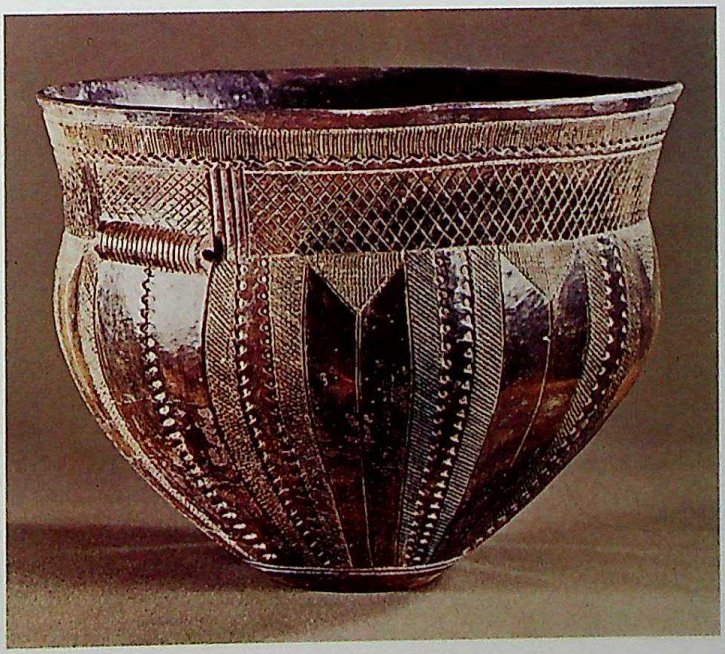


The polished flint axe was the chief weapon of the farmers in the struggle with the forest. The picture shows 15 flint axes deposited as an offering; from Hagelbjerggård on Zealand. Ca. 3500 B.C. Room 6



A pottery vessel from the early agricultural culture found at Skarpsalling in Himmerland, ca. 3200 B.C. Room 4.

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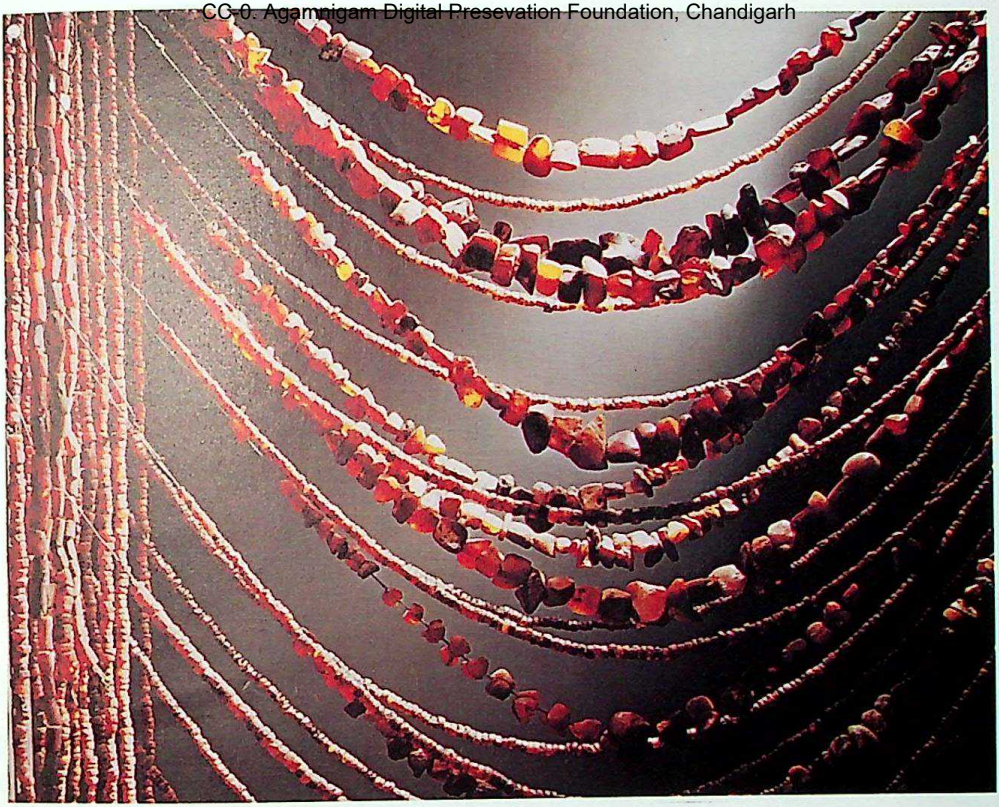

Amber was an important medium of exchange throughout prehistoric times. It occurs along the west coast of Jutland, and in smaller quantities at other places in the country. The big amber hoards from the Stone Age contain up to 8–10 kilogrammes of amber. Room 6.

The best flint was mined in places where the Senonian chalk outcrops at the surface. The photograph shows a mine gallery excavated at Hov in northern Jutland, ca. 3500 B.C. Room 5.

had to live together, for it needed many hands to clear the forest and called therefore for a new order of society.

The first domestic animals were pigs, cattle, and sheep. Their chief value lay in their meat, and the pig was particularly important. For a long time it retained the same appearance and way of life as its wild relatives, and therefore required little care. Also the value of the cow lay chiefly in its meat, less in its milk production. The sheep, whose management did not demand a great deal of labour, were also kept for their flesh.

Corn, mostly primitive forms of barley and wheat, were grown in the little fields around the villages. Experiments have shown that the yield may have been relatively good, four- to sevenfold, which is more than one could depend upon harvesting on a seventeenth or eighteenth century Danish farm.

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Finds of early agricultural implements are exceedingly limited and we can only guess at digging sticks, spades, hoes, and so on. Traces of ploughing have, however, been found under some early grave barrows, where crossing streaks of dark ploughsoil are seen in the surface of the paler subsoil. Such discoveries show that at any rate by 3000 B.C. the „ard" had come into use as a primitive scratch-plough for loosening the soil.

It was still the Stone Age, and flint was the most important material for making tools and weapons of. The bigger axes needed to be made of large blocks of flint of good quality. This kind of flint is embedded in the native chalk and seldom occurs on the surface. It had to be mined, as was possible in areas where the chalk was accessible. From the „mining districts" the flint was spread far and wide as part of a system of barter. In this trade also amber played a part, both in an unworked and a worked state, and occasionally even copper objects. These early metal finds indicate contact with central Europe. The first step had been taken away from self-sufficiency.

Just as agriculture transformed the foundation for human social organization, it also changed religion. An agriculturist must necessarily have a different idea of the powers that govern existence than a hunter has. This finds its clearest expression in the burial customs. At first the farmers buried their dead singly. There were many different customs attached to burial, and their graves were built in many different ways. Some were mere holes in the ground, in others the dead were protected by stones. The variations were nearly endless.

From about 3500 B.C. the farmers began to build permanent houses for the dead in the form of dolmens, i.e. chambers built of very large stones. They became the centre of the cult of the powers ruling over death and the house of the dead. Around the chamber might be heaped an earthen mound, visible from far and wide. The dead were allotted an impressive place in the world of the living.

At about 3000 B.C. the building of stone tombs culminated in what we call passage graves. In these the burial chamber was 5–6 meter long, with walls and roof of great

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At about 3000 B.C. the construction of megaliths reached its highest development with the passage graves, large chambers with room for up to 100 corpses.

stone blocks, and was entered along a stone-built passage. Like the dolmens they were covered by earthen mounds supported at the margin by kerbstones.

When a new burial was made, the chamber was opened and the dead lain in among the others from the village. The passage grave was the common burial place of the village or clan, where the dead could continue a form of existence in the company of their neighbours and relatives. When a new burial was made the corpse was dragged in through the passage and the remains of the earlier burials were pushed aside to make way for the new arrival. The dead would be laid to rest with his weapons, tools, and ornaments, and beside him were placed pottery vessels containing food and drink.

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Pottery from the early agricultural culture, found in various passage graves. Ca. 3000 B.C. Room 4.

The construction of the great stone tombs shows the arrival of a new burial cult, but single burial continued to be practised as before, and in the course of time the structures connected with it became rather complex. At about 3000 B.C. a new burial system appeared in Jutland. The actual graves were dug into the ground often in pairs. Close beside them was constructed a kind of hut or scaffolding on which the grave gifts, and perhaps also the corpse itself, were visible for all to see, until the body in due course was removed to the grave proper. These constructions were arranged in rows, sometimes several kilometers long and following lines of communication in the terrain.

In order to keep in contact with the powers which governed the fertility of the animals and crops, the people sometimes held ritual meals at the edge of marshes or lakes, bringing food with them in pottery vessels or slaughtering an ox, sheep, or pig on the spot. Sometimes human flesh was included in the food. Life and fertility had to be paid for

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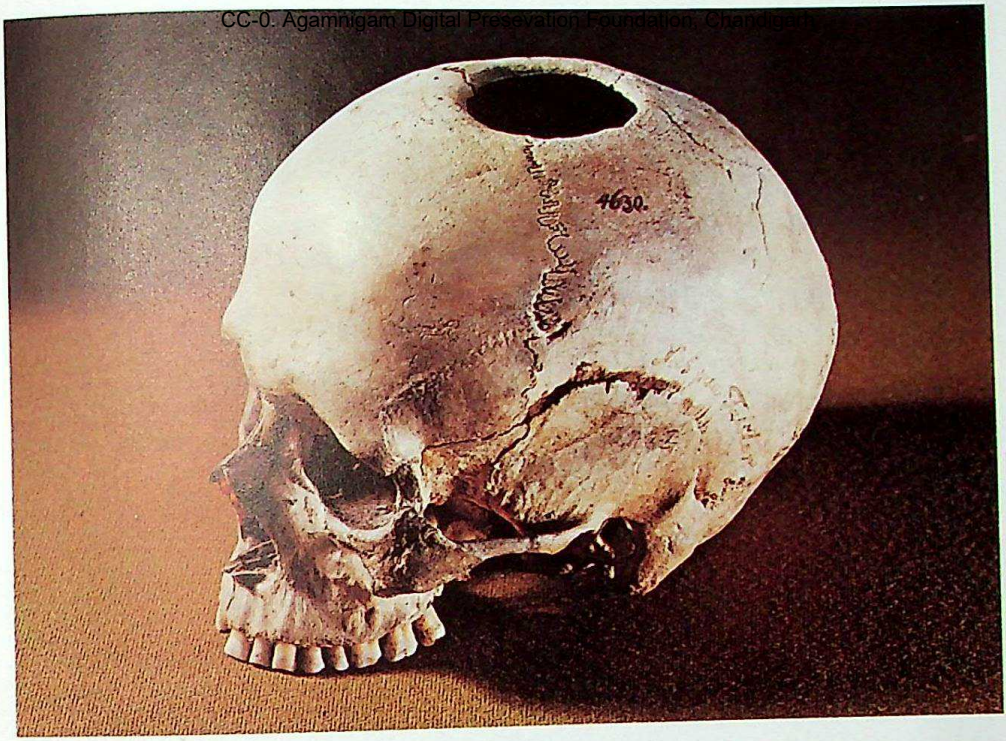

Trepanned skull from the time of the early agricultural culture, ca. 3000 B.C. Room 3.

with life. Afterwards broken pottery, implements and remains of food were left behind. Ritual sites like this have been found at many places in Denmark.

Pots with food or drink, and amber beads or costly flint axes were laid in considerable numbers as an offering to the Spirits of Nature at the edge of lakes or marshes.

Perhaps these discoveries give us a notion of the people's religion. An important element was probably ancestor worship, accompanying the cult of the dead and ensuring the cohesion and justification of the clan. Equally important must have been the religion of growth, which was attached to the changes of the seasons and to life's two extremes, birth and death. It is probably the religion of growth that is reflected in the many ritual offerings from the early period of agriculture.

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Room 3. New Stone Age.

1 Modern experiment with swidden cultivation. The trees have been felled with genuine flint axes set in new handles. In the case on the right can be seen original axes with hafts.

2 Stone Age surgery – trepanation. Skull and breast bone of an individual shot with an arrow.

3 Bones with healed fractures and various examples of disease.

Room 4.

1 Grain impressions on pottery are one of the indications that agriculture had been introduced.

4–5 Neolithic pottery with various kinds of ornament, including impressions of a cord, of the edge of a cardium shell, scored lines, and dots. The designs are sometimes filled with chalk to make them more visible.

6 Model of Neolithic village at Barkær in eastern Jutland. It consists of two parallel long-houses with separate rooms.

8 Household implements of wood – spoons and vessels.

Room 5.

3 Stone axes, some made in imitation of foreign forms in metal.

4 The best flint came from the mines and could be roughly chipped on the spot.

6 Copper objects showing that the metal was sometimes imported in the Stone Age. The most important discovery is the Bygholm hoard, which is dated by the pot in which it was found.

7–8 Finds from the „Pitted-Ware" culture.

Room 6.

3 Reconstruction of the interior of a passage grave containing burials.

7–9 Examples of Neolithic ritual deposits. Pottery, large flint axes, bone chisels, etc., and amber beads, including the hoard from Læsten in Jutland, one of the largest of the amber hoards.

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The Changing Land

Room 7. Ca. 2800–1800 B.C.

By about 2800 B.C. big changes seem to have affected agricultural society. The population had grown a great deal since farming was introduced, and the amount of land under cultivation had increased. Pressure on the forest had grown stronger.

This still dominated the landscape, but the hand of Man could be seen everywhere in the open areas where herds of cattle grazed, and by their feeding kept down the growth of new trees and bushes. The creation of the open agricultural landscape was under way.

Also the way of life was changing. It was earlier thought that a new people entered the country at this stage – the „Single-Graves people" were supposed to have come up from the south and spread over the whole of Denmark. The question is still under discussion, but another possible interpretation is that the changes were caused by local factors,

Pottery and battle axes of various kinds of stone from ca. 2800–2400 B.C. Room 7.

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or more precisely that the exploitation of the environment had reached such a pitch that some change became necessary in the pattern of life.

In all events new forms of tools and weapons came into use among the farming peoples. Stone battle-axes became the most important weapon. Knowledge of this new form was acquired from foreign peoples to the south, whose axes the earliest Danish ones resemble. Later the native craftsmen developed new forms. For four centuries the axe remained the vaunted weapon of the warrior.

The changes in society also led to the adoption of a new burial custom at about 2800 B.C. The dead were buried singly in wooden cists under low mounds, which has given the name Single-Graves Culture. The first mounds could be about a meter high and ten meters across, but they were often made larger as time progressed. The edge of the mound could be indicated by a circle of stones, perhaps with a cobbling continuing up the sides of the mound, or by some other feature indicating that the ground was hallowed.

Discoveries of settlement sites from this period are still few, and our knowledge of the economic background is limited. Many things suggest that emphasis was laid on stock breeding and that it was an increase in the number of beasts that lay behind the increase of productivity necessary to support the steadily growing population.

At about 2400 B.C. began the last phase of the Stone Age, also known as the Dagger Period. Flint working reached its apogee with the production of technical masterpieces. Daggers and spearheads are forms that do not come naturally to flint, but they were made because it was wished to keep up with the fashions in vogue further south in Europe. The daggers are imitations of the imported metal weapons that began to appear at this time, and inspired the flint workers to their final efforts. What we see is thus a ,,developing country'' trying to keep abreast of the times without having sufficient access to the new material, bronze.

As early as the beginning of the fourth millenium B.C. some of the peoples of the mountain regions of the Balkan peninsula had learned the secret of refining metal from ore. During the succeeding thousands of years the knowledge

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Flint dagger found at Hindsgavl on Funen. Ca. 2000 B.C. Room 7.

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spread slowly across Europe, and at about 2000 B.C. bronze began to be cast in Denmark – the Bronze Age was about to begin.

The most important things to see

Room 7. Single-graves Culture and Dagger Period.

1–2 Battle-axes and pottery from the Single Graves culture.

7 Bronze weapons and gold ornaments imported at the end of the Stone Age.

8 The earliest locally manufactured bronze implements.

10 Curved sword of flint made in imitation of a bronze prototype.

13 Flint dagger from Hindsgavl on Funen and other daggers, spear-heads, and arrowheads of flint, some made in imitation of bronze prototypes.

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Gold collar from about 2000 B.C. found at Grevinge on Zealand. Room 7.

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THE BRONZE AGE

Farmers and Metal

Rooms 8–9. Ca. 1800–1000 B.C.

At about 2000 B.C. the country's farmers were becoming acquainted with such altogether new materials as copper, tin, and gold, which were acquired by barter from distant regions. Not long afterwards bronze, an alloy of copper and tin, had completely displaced flint as the most important material for tools. The period from 1800 to 500 B.C. is therefore described as the Bronze Age.

Every gramme of the new material had to be brought from outside the country. There seems over the whole continent of Europe to have existed a fine mesh of trade connections through which were exchanged not only bronze, but also products such as wax (used in the casting process), honey, hides, amber, and many other things. The foreign wares which had most interest for the local peasants were tools and weapons, as they were tougher and lasted longer than those they had used before. Most of the foreign bronzes ended by being melted down by local founders. These freed themselves remarkably quickly from the influence of foreign models and developed a north European style of bronze work, characterised in particular by spiral ornament, which was quite as good as the work of the regions the metal came from.

The bronzes had many shiny surfaces that invited the art of decoration. At first this consisted merely of linear patterns, punched or scored on the hard surface of the metal. At about 1500 B.C. spiral ornament reached the country from the south. The larger surface areas were divided into zones of spirals bounded by zones of linear patterns. The technique was elegant and the spirals were tightly wound and executed with great skill.

By about 1200 B.C. the spiral style had had its day. Instead, the founders created new forms of decoration with circles and arcs as the chief elements. The arcs could be

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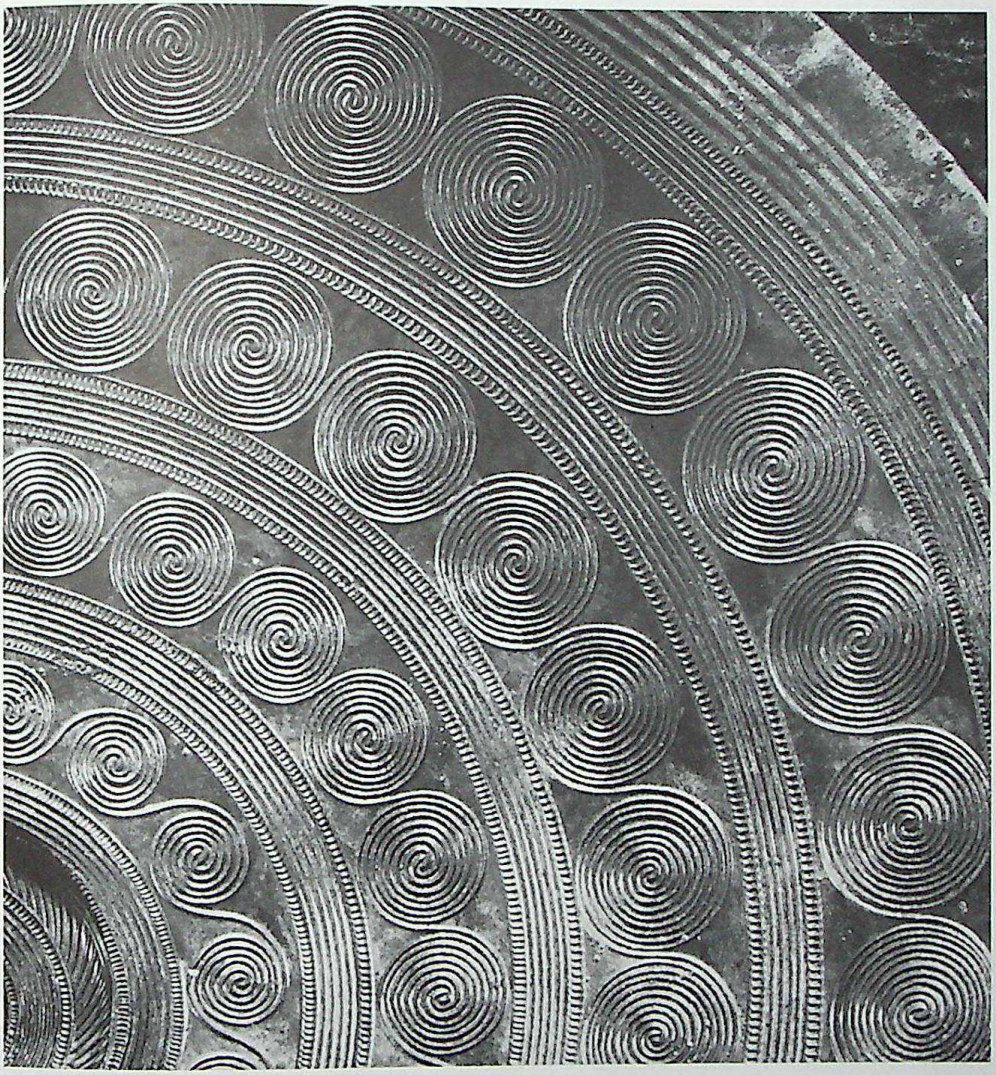

Close-up of the spiral decoration on a belt disk found at Langstrup on Zealand. About 1400 B.C. Room 8.

combined to make stars, which were often sunk into the surface and filled with resin.

The population had been growing steadily since the introduction of agriculture. A better use of the cultivated areas was necessary, and the wooden plough (ard) was an important means of achieving this. The implement seems to have been known already at about 3000 B.C., and towards 1500 B.C. it was in general use all over the country.

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Early Bronze Age swords, 1400–1000 B.C. Room 8.

Plough agriculture placed a greater burden of work on the inhabitants, but on the other hand meant a more thorough working of the soil, so that the fields could remain longer in use than before. But it was still the herds of beasts that gave the settled areas their real character. In some places in Jutland grazing was so intensive that heather began to spread.

It is only very recently that we have acquired any idea of the period's villages, thanks to investigations at Vadgård on Limfjorden. The houses appear to have been large and well built. Not only this fact, but also the amount of work required to construct the large burial mounds seems to show that Bronze Age society had an organised structure, perhaps under the leadership of ruling houses whose chiefs combined secular and spiritual power in their own hands.

It is the burial finds that tell us most about the people of the early Bronze Age. The graves were normally covered by

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large mounds, sometimes containing several burials, as though they were family cemeteries.

The most impressive were the great oak coffins, in which woven cloth, here met for the first time in our own area, and other rare finds are preserved by exceptionally favourable soil conditions.

Four complete sets of men's clothing are preserved. They were found at Trindhøj, Borum Eshøj, and Muldbjerg in Jutland. The costume consisted of a cap, a cloak, a rectangular piece of cloth for wrapping around the body, and of footwear. Two kinds of cap are known, one with round crown and nap sewn on, like the rough surface of a towel, the other tall and sewn together of several pieces without nap. The cloaks are oval and of different sizes. That from Trindhøj has nap. The wraps or loin-cloths were of two types, a long kind which covered the chest with projecting corners secured by studs behind the back, and held at the waist by a belt of leather or cloth, and a short kind held up by a cord at the waist, leaving the chest bare, as in one of the graves at Borum Eshøj. Leather moccasins tied with leather laces were worn on the feet.

Three sets of women's clothing are preserved. They come from Egtved, Borum Eshøj, and Skrydstrup, all in Jutland. A cap or hair-net was worn on the head and the other clothing consisted of a blouse, a belt, a skirt, and footwear. Some of the hair-nets were bound in the technique called ,,sprang'', and one was found in the Egtved grave notwithstanding that the corpse had short hair. At Skrydstrup a

Bronze Age barrows on Udby heath in Thy.

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Woman's grave from Egtved, Jutland, about 1400 B.C. The short-sleeved blouse, string skirt, and personal ornaments of the body can be seen.

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Copy of of the woman's dress of the Early Bronze Age.

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The sun-chariot from Trundholm. The gold-mounted bronze disc represents the sun, which is drawn across the sky by a horse. About 1400 B.C. Room 9.

„sprang" cap or bonnet with long ribbons lay beside the head of the corpse. The blouses are all short with half-length arms, and one has embroidery and neck-edging. The belts ended in tassels, and a round belt-plate of bronze and the indispensable comb were fastened to them. The woman in one of the coffins at Borum Eshøj was provided with a dagger. The skirts are of two types, a short string-skirt wrapped twice around the loins, and a long cloth one that reached to the feet.

The life of the people depended on the forces of Nature, and their religion gave expression to this fact. Rituals and ceremonial offerings of tools, ornaments, and weapons were intended to ensure that crops, beasts, and people survived and prospered. Hundreds of such depositions are known from Denmark's peat bogs. The most famous of them is the sun-chariot from Trundholm, perhaps only a miniature of a larger vehicle that was driven around at sacred rituals.

The most important things to see

Room 8. Early Bronze Age.

1–3 Imported bronzes.
4 Technology of bronze casting. Moulds of soapstone and copper.
5 Various ornaments and weapons of bronze.
7–8 Gold ornaments from the earlier part of the Bronze Age.
10 Some wooden objects from the Early Bronze Age, found in graves, among them a folding stool of ash wood and a large wooden bowl ornamented with tin nails.
11 One of the types of plough known in the Bronze Age, a crook ard found in Hvorslev bog, Jutland. C-14 dating ca. 1500 B.C. Share and beam partially preserved, stilt missing, but the hole for it can be seen.

Room 9. Early Bronze Age.

1–6 Bronze Age clothing. The cloth is of sheep's wool. The wool was spun to make relatively thick thread, which was woven into plain cloth. Original sets of men's clothing from Borum Eshøj, Muldbjerg, and Trindhøj, and copies of women's clothing found at Borum Eshøj and Skrydstrup. Also original bronze ornaments.
8 Large bronze axes. None were for practical use and some were cast over a clay core. They were used at ritual processions. Similar axes are shown in Swedish rock carvings.

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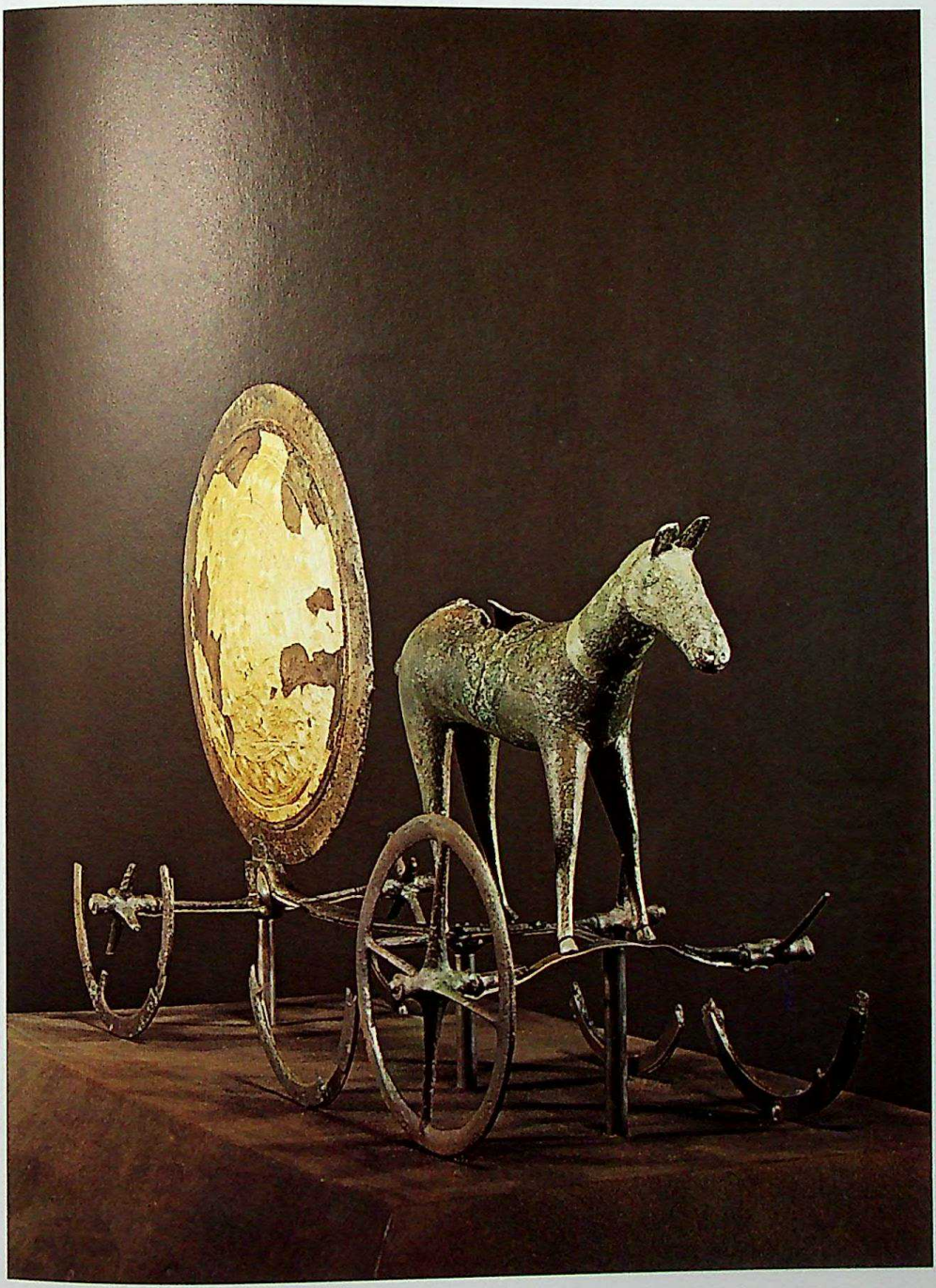

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10 The sun-chariot was found in 1902 when Trundholm bog in north-west Zealand was ploughed for the first time. The gold-covered disk represents the sun harnessed to a horse. A cord must have passed through the loops on the disk and on the horse's neck, and there was originally a bridle in the horse's mouth. Dated by the style of ornament on the disk to about 1400 B.C.

12 Log coffin from Borum Eshøj near Århus. In the same barrow as the grave exhibited in case 15 were found two further log coffins. In one lay the old man whose clothing is exhibited in case 3. In the other, lying on a cowskin, lay a young man wearing a loin-cloth and covered with a cloak. His scabbard lay on top of the cloak, but instead of a sword, only a little bronze dagger had been placed in it. Other objects in the grave included a wooden stud, a horn comb, and a round wooden container.

13 Log coffin from Skrydstrup near Haderslev. In a poorly-preserved oaken coffin lay the body of a young woman, resting on a cowhide and covered by two woolen blankets. She wore a short, roughly embroidered jacket and a long skirt fastened at the waist with a belt, to which her horn comb was attached. She had spiral gold earrings, and her hair was set and held in a net. At her head lay a woolen cap made in the ,,sprang" technique. The Skrydstrup burial is exhibited in a coffin from Uge in southern Jutland.

14 Log coffin from Egtved, near Kolding. On a cowhide lay the body of a young woman. She wore a jacket and a short, ingeniously made string skirt. Traces of a hair net were found despite her short hair. Around her waist was a belt with a round belt-disk of the type common in the Early Bronze age. Her feet were wrapped in pieces of cloth, and on her wrists were bracelets of bronze. At her head stood a bark container, and at her feet a bark bucket with the remains of a fermented drink made of honey and cranberries and flavoured with bog myrtle. Also at her feet lay a piece of cloth wrapped around the burned bones of a child. The corpse was covered with a woolen blanket.

15 Log coffin from Borum Eshøj, near Århus. On an animal skin lay an old woman wearing a blouse with belt. She was probably wrapped in a broad piece of woolen cloth, but the grave was not excavated archaeo-logically, and consequently there is some uncertainty about how the body was dressed. With her were found a bronze dagger with horn handle, various bronze ornaments, a pot, etc.

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Farming Society in Slow Growth

Room 10. Ca. 1000–500 B.C.

Greater human influence on the landscape can be observed during the last 500 years of the Bronze Age. Forest clearance increased and numerous small villages could be met with, especially on the lighter, more sandy soils. They lay on ridges in the terrain, surrounded by small fields and extensive pastures where the cattle grazed.

In recent years several settlements of the period have been excavated. They all show that the people lived in long, well-built houses, some with more than 200 square meters under one roof. Sites in question are Bjerg, Spjald, and Hovergårde in western Jutland, Fragtrup in north-central Jutland, and Skamlebæk on Zealand.

The society of the late Bronze Age must have been led by powerful families of chiefs. At Voldtofte on south-western Funen has been excavated a grave mound in the construction of which no less than 3000 cubic meters of earth were used, obtained by peeling the sod off an area more than 7 hectares in extent. Only very powerful chiefs could have ordered construction work on such a scale.

To demonstrate their importance, the leading men acquired bronze objects of foreign origin. From central Europe came drinking sets with costly hammered bronze vessels, shields, and weapons, but unlike some of the earlier finds, these were not buried with the dead. Nearly all the rich bronze finds come from peat bogs, where they were laid as gifts to the higher powers. The graves were now much poorer, because custom required the burning of the corpse, and usually only a few personal effects were put in the urn together with the cremated bones.

Among the finds from the peat bogs, the most impressive are the big wind instruments called the lurs. These are large horns which normally occur in pairs tuned to the same pitch. Some are so well preserved that they can still be played on. They consist of tube, mouthpiece, and flat ,,bell'', and sometimes have a chain with ,,rattle-tags'' of thin bronze. They can only play the natural tones of the harmonic series, and have a curious rough quality that reminds one of the

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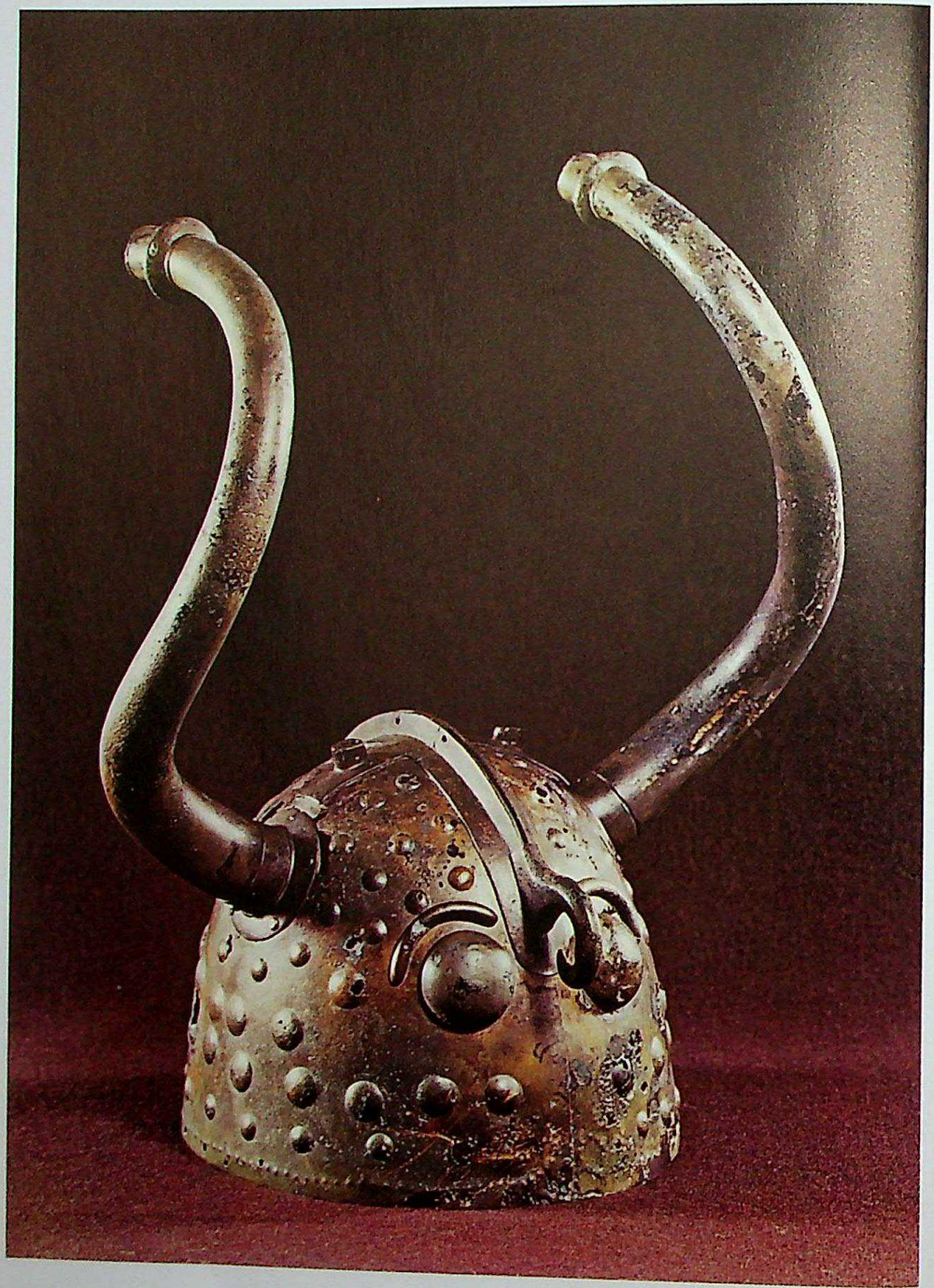

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Bronze helmet found in Veksø bog on Zealand. Ca. 1000 B.C. Room 10.

Late Bronze Age lur, ca. 1000–800 B.C. Altogether about 50 lurs have been found in Denmark, Norway, Sweden, and northern Germany. The largest number found together come from Brudevælte bog in northern Zealand, where there were 6 lurs. Room 10.

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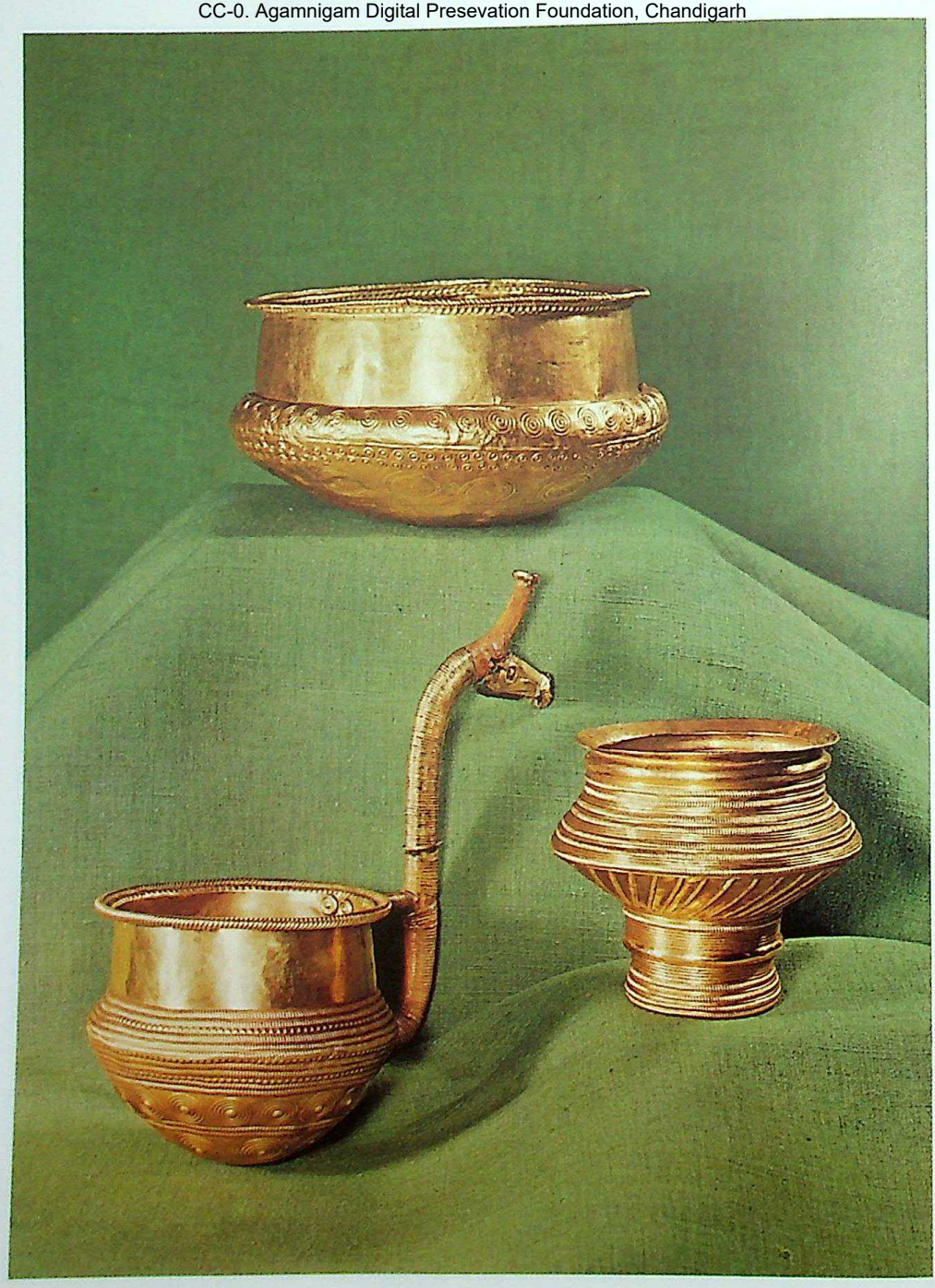

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Statuette of a kneeling woman, only a few centimeters tall. Found together with a number of other figurines at Fårdal in Jutland. Ca. 800 B.C. Room 10.

Gold bowls, ca. 1000–800 B.C., late Bronze Age. The bowls were probably imported from central Europe, but the little bowl's handle in the form of stylised horse's head, was added locally. Room 10.

modern trombone. The lurs are cast work of very high technical standard. About 35 lurs have been found in Denmark, and a smaller number come from Norway, Sweden, and northern Germany. Pictures of lurs in the Swedish rock carvings show that they were used at ritual ceremonies.

Ritual equipment also includes a number of bowls of beaten gold, which along with some statuettes of animals and human beings give a glimpse of the period's strange

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religious ceremonies. No less fascinating are the rock carvings. Most of them have been found in Sweden and Norway, but there are over one hundred in Denmark, mostly on Bornholm and in northern Zealand. They too date from the thousand year long period of the Bronze Age.

The most important things to see

Room 10. Late Bronze Age.

1 Occupations and settlement, ca. 1000–500 B.C.
2 Weapons and ornaments.
3 Mounts from carts and harnesses.
4 Imported bronzes from central Europe – shields, swords, knives, spearheads, and beaten bronze pails, probably for cult purposes.
5 Lurs (see main text).
6 Sacred well from Budsene on the island of Møn.
7 Ritual and sacrificial finds from the Late Bronze Age.
8 Late Bronze Age graves: cremation.
9 Gold drinking cups, probably used at religious ceremonies, including the finds from Borgbjerg and Midskov.
10 Late Bronze Age ritual gear, including two horned helmets found at Viksø in northern Zealand.

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THE IRON AGE

Towards a New Era

Room 11. Ca. 500 B.C.–0.

After 500 B.C. bronze was gradually replaced by iron as the material of which tools were made. The Iron Age had begun. At first only a gradual transition was noticed by local agricultural society, but towards the time of Christ influences became increasingly felt from continental Europe.

In the last centuries before Christ the Celts in central Europe were becoming powerful, and further south the Roman Empire was being established. Armies were sent northwards during the reign of Augustus to subdue the peoples of central Europe, and the Empire attained its lasting borders shortly after the beginning of our era. The frontier ran along the Rhine and Danube and divided the civilized world from the barbarians.

In Denmark these events were only distantly felt. Village society developed in peace, new land was cleared, and the improved tools of iron made it possible to clear some of the remaining areas of dense forest and make room for the growing population.

Village now lay after village. Narrow paths led through a landscape of bogs, meadows, woods with big clearings, and abandoned fields. The heaths were spreading on the poor soils of western Jutland – Man's struggle with the forest was coming to an end.

A fair number of village settlements are now known from the pre-Roman period, as the first five centuries of the Iron Age are called. Among them is Grøntoft in western Jutland, which gives an idea of the village community's struggle to exist on the poor sandy soils, where sometimes even heathland was brought under cultivation. The village appears to have been moved with each new generation, perhaps because the soil near by was exhausted, perhaps because the houses had become uninhabitable. The remains of nearly 250 houses have been excavated, covering a period of about 300 years. On one occasion it was found that the village had

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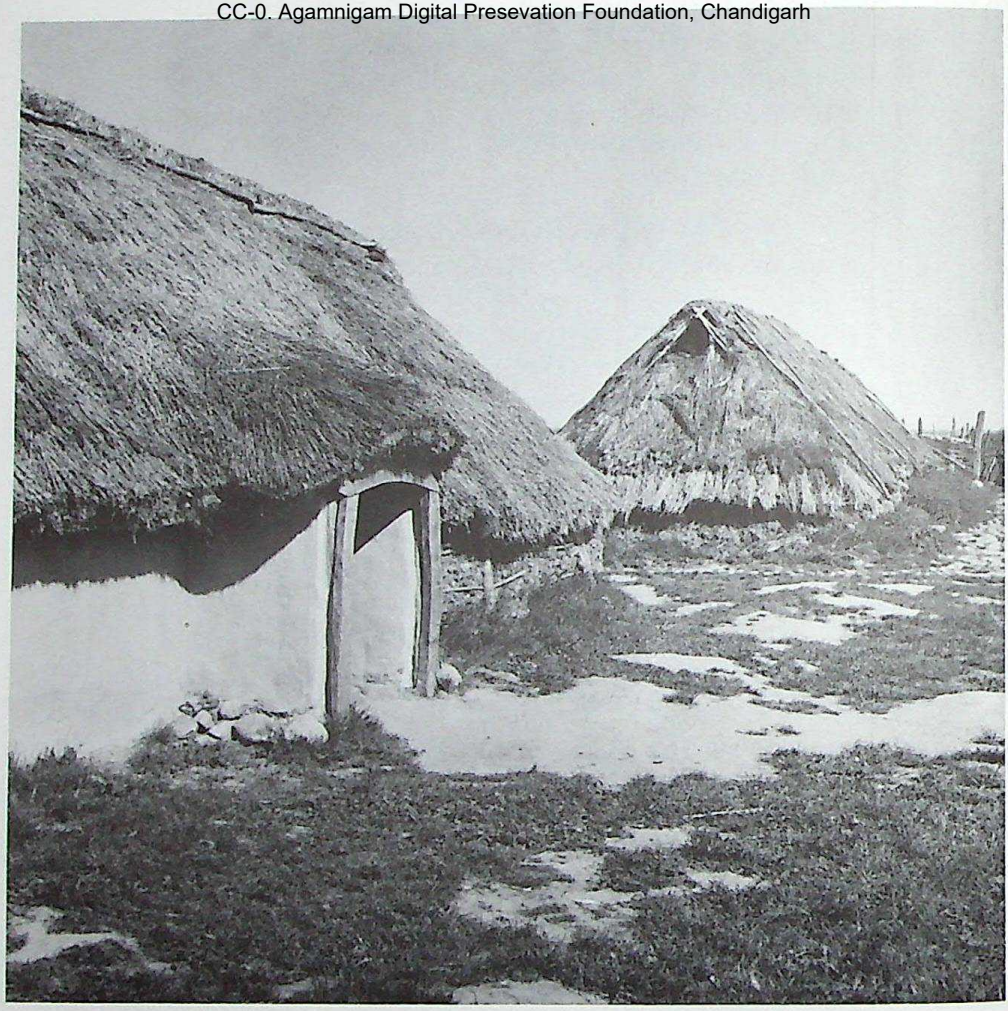

Many attempts have been made recently to build houses of Iron Age type. The picture shows one of the houses in the „Iron Age village" at the Historical-Archaeological Experimental Centre at Lejre, ca. 40 kilometers from Copenhagen.

been surrounded by a palisade, which enables us to see how a complete village looked 2–300 years before Christ. It consisted of five long houses, with room for 8–18 cattle or other large beasts, some smaller houses with only a few beasts, and some houses with no byre at all. The village must have accommodated altogether about 50 people and 70–80 large beasts, but some of the farms were better off than others.

Another village with surrounding palisade was found at Hodde, near Varde. The soil was better than at Grøntoft and the village larger. About 200 people with 300–350 cattle

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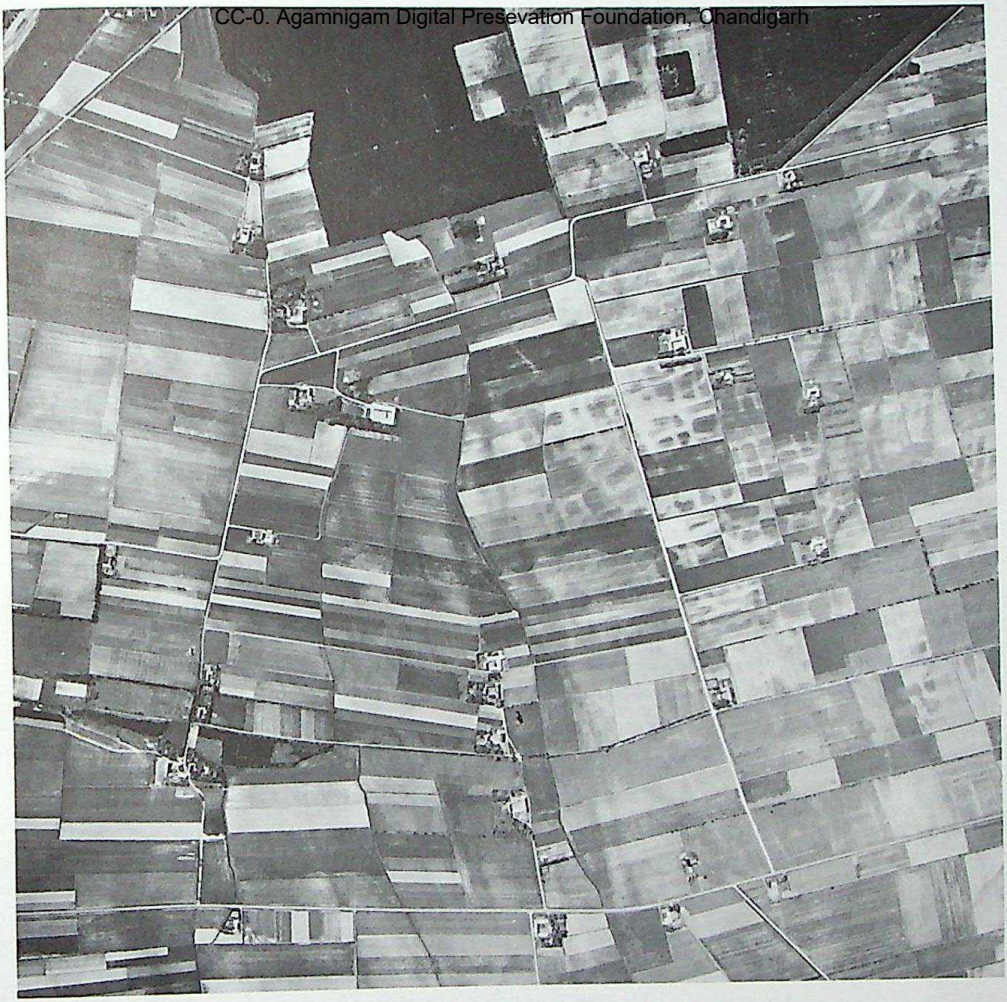

Traces of Iron Age fields can sometimes be seen in air photographs as irregular rectangles on the surface of the ground. This picture was taken north of Hals in Jutland. Published with the permission of the Geodetic Institute. (A. 233/78). Copyright.

must have lived in it. Also here some farms were better off than others, but one of them was particularly conspicuous because it had room for no less than 28 beasts. One may suppose that the most powerful man in the village lived here – a division of the people into rich and poor now seems clear. Chiefs and big farmers must for earnest have been beginning to dominate the development of the villages.

The houses were usually between 12 and 30 meters in length. At one end the family ate, worked, and slept. In the middle of the room there was a fireplace, where food was

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cooked, and along the walls were found benches and sleeping places. The other end of the house was fitted with stalls for cattle and perhaps horses.

Around the villages lay small fields, where corn, mainly barley, was cultivated. The soil was ploughed and cross-ploughed with an ard. The fields were separated by uncultivated belts on which wild plants grew and where weeds and stones from the fields were thrown. The dry sand blown up from the fields settled on them and in the course of time low banks with hedges grew up between the fields. Sometimes the fields were allowed to lie fallow, i.e. were left uncultivated to avoid taking the nourishment from the soil. Instead edible seeds could be collected from the weeds that grew on the uncultivated ground. Afterwards cattle were allowed to graze, which gave manure and improved the next year's harvest.

In the spring the fields were ploughed with an ard, a primitive plough, which had a wooden share that could be adjusted as it became worn. Several such ploughs have been found in Danish bogs, the most famous being from Døstrup in Jutland.

There appears to have been a change of climate at the beginning of the Iron Age. It became colder and wetter. It is not clear how much influence this had on agriculture, but probably it resulted in milder winters and its effects were therefore in the long run beneficial.

In many of the villages iron was produced for domestic consumption. The raw material was bog ore, which is formed by the natural precipitation of iron under conditions of acidity and waterlogging, such as are found in many peat bogs. The ore was refined by a reduction process, using charcoal and a clay furnace open at the top. First the furnace was heated up with firewood and then partially filled with charcoal. When this had been brought to combustion, alternate layers of ore and charcoal were put in, as the material all the time consolidates and sinks. On its way down the ore is reduced to metallic iron, and the process ends with a great block of iron and slag at the bottom of the furnace. The last stage of the process was to separate the iron from the slag by heating and hammering, giving a piece of raw iron that

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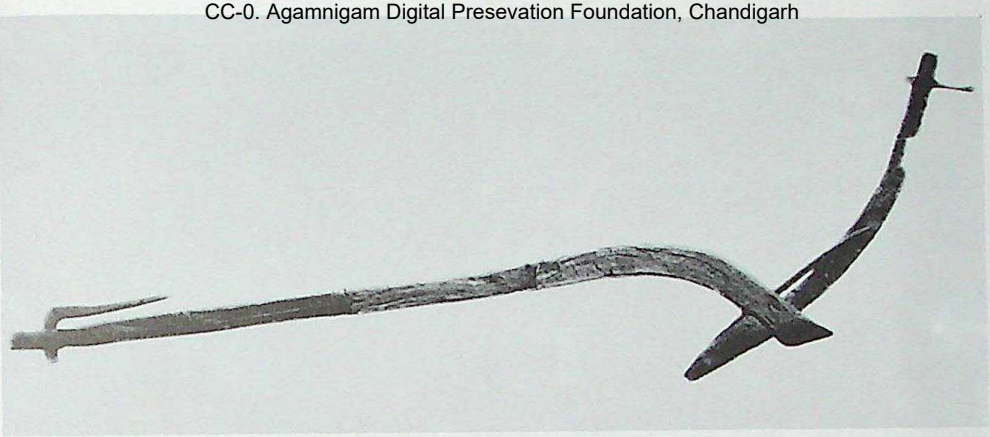

Scratch plough from Døstrup bog, Jutland. Ca. 600 B.C. Room 11.

could be worked further into an implement.

Just as in the Bronze Age, objects of great value were laid as offerings in the country's bogs. Two of them are of especial note – the Gundestrup cauldron and the Dejbjerg carts.

The great silver cauldron was found in a little bog in Gundestrup parish in Himmerland in 1891. It lay in pieces, with the twelve square plates, the round basal disk, and two pieces of the rim lying together inside the base.

The plates illustrate gods and goddesses, bulls and bull-fights, a cavalcade of warriors, processions, and scenes of sacrifice. Most scholars think that the Gundestrup cauldron is a foreign work, probably made by artists whose home lay in south-eastern Europe where the Danube flows into the Black Sea. It is thought that two Celtic deities can be distinguished among the figures – Cerunnos with the deer antlers, and perhaps the sun-god Taranis as the bearded figure with a wheel. Nobody knows how the cauldron came to Denmark – perhaps it was a gift to a prominent chief, perhaps it was booty of war. That it was deposited as an offering is shown by the fact that it appears to have been placed on the surface, visible for all to see until the bog grew over it.

Other cauldrons with Celtic traits but made of bronze have been found at Brå in Jutland (seen at the Prehistoric Museum, Moesgård, near Århus) and at Rynkeby on Funen.

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Silver cauldron found in a bog at Gundestrup in Himmerland. Probably Celtic work from about 100 B.C. Room 11.

Also the Dejbjerg carts had been laid in a bog, where parts of two vehicles were found in 1881 and 1883, scattered and mixed together so that it would appear that they had been laid down in pieces. There were only enough complete parts for one cart with four wheels. Its body, undercarriage, and shaft are richly decorated with openwork bronze mounts, in which there at some places are remains of enamel. The reconstruction of the carts is not certain in all details. The metal parts of comparable vehicles are known from rich graves in other parts of Denmark.

Detail from the Dejbjerg cart. It was found together with fragments of a second vehicle in a bog near Dejbjerg, Jutland. Pre-Roman Iron Age, ca. 500 B.C.–0. Room 11.

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Room 11. Pre-Roman or Celtic Iron Age.

1 Model of the site at Hodde. The model shows the village when its population was at its greatest. Inside the palisade can be seen 27 dwellings, of which 22 are farmhouses with byre and the rest long houses without byre. 2–3 small buildings were smithies.

3 The ard from Døstrup bog near Hobro. Dated by the C-14 method to the middle of the first millenium B.C.

4 Carts from Dejbjerg bog, south-east of Ringkøbing. See main text.

5 Imported Celtic bronze objects and native bronzework. Cauldrons from Rynkeby and Sophienborg both probably Celtic work. Central European sword from Lindholmgård bog in Zealand. Bronze vessel from Mosbæk, made in Etruria in the 3rd century B.C. Gold torque from Dronninglund, imported from south-eastern Europe, probably 1st century B.C. Native bronze ornaments – torques, dress-pins, belts, etc.

6 Cauldron from Gundestrup near Års in Himmerland. See main text.

Chieftains and Farmers

Rooms 16–17. Ca. A.D. 0–400.

The period of growth enjoyed by the village communities in the last centuries before the birth of Christ continued in the first centuries of our era. Agriculture had created a landscape characterised by fields, wide pastures, and raised peat bogs, in which many areas were now without forest. The village herds required much pasture, and it seems that the population were now in the process of attacking the alder growth that filled the many damp areas, and was turning them into meadows.

An open landscape of this kind could be seen in the fertile region of Thy in north-western Jutland, where a large number of villages of the same age lie close together within an area covering some 500 square kilometers. Some of them, like Hurup, Vestervig, Mariesminde, and Ginderup have been excavated by the National Museum. Settlement was so dense that there was normally only a couple of kilometers to the next village. The average village territory must have been about ten square kilometers. A corresponding density

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of population existed on the eastern Danish islands, but settlements have been less frequently investigated.

The type of agriculture was the same as before. Productivity was not very high, and the emphasis laid on the cultivation of corn or keeping of stock seems to have varied with the character of the soil. Certainly the villagers had to work hard to produce the necessary food.

Even in the last centuries before Christ, it seems that political power was being gathered into steadily fewer hands. The same tendency continued in the centuries after Christ. It can be seen best in the grave finds, which are perhaps the most important source of our knowledge of life and social structure in the first centuries of our era.

On the basis of the graves, the period can be divided into two sections, each lasting about two hundred years, while at the same time the country can be seen to have been divided up into a number of fundamentally different local regions, perhaps representing separate tribes or chiefdoms. Differences in the type of grave and in the form and ornament of the pottery enable us to distinguish seven main areas. These were Bornholm, Zealand, Funen, North Jutland, East Jutland, South Jutland, and West Jutland.

Alongside cremation burial, which continued in many parts of the country as a tradition from pre-Roman times, there appeared a new burial rite – the inhumation of the unburned body, often accompanied by copious food and drink. For the rest of prehistoric times cremation and inhumation existed side by side.

The most interesting thing about the graves, however, is that they suggest a society in which power was concentrated in the hands of a relatively few, powerful families. It is difficult to interpret in any other way the splendidly equipped graves, which here and there stand out from the majority with more commonplace equipment. In the first part of the period the graves from Hoby on Lolland and Dollerup in Jutland had a ,,princely'' character of this kind. In its later part the graves from Himlingøje, Varpelev, and Nordrup, among others, bear witness to the wealth of the leading families.

Much of the riches in the graves consisted of goods impor-

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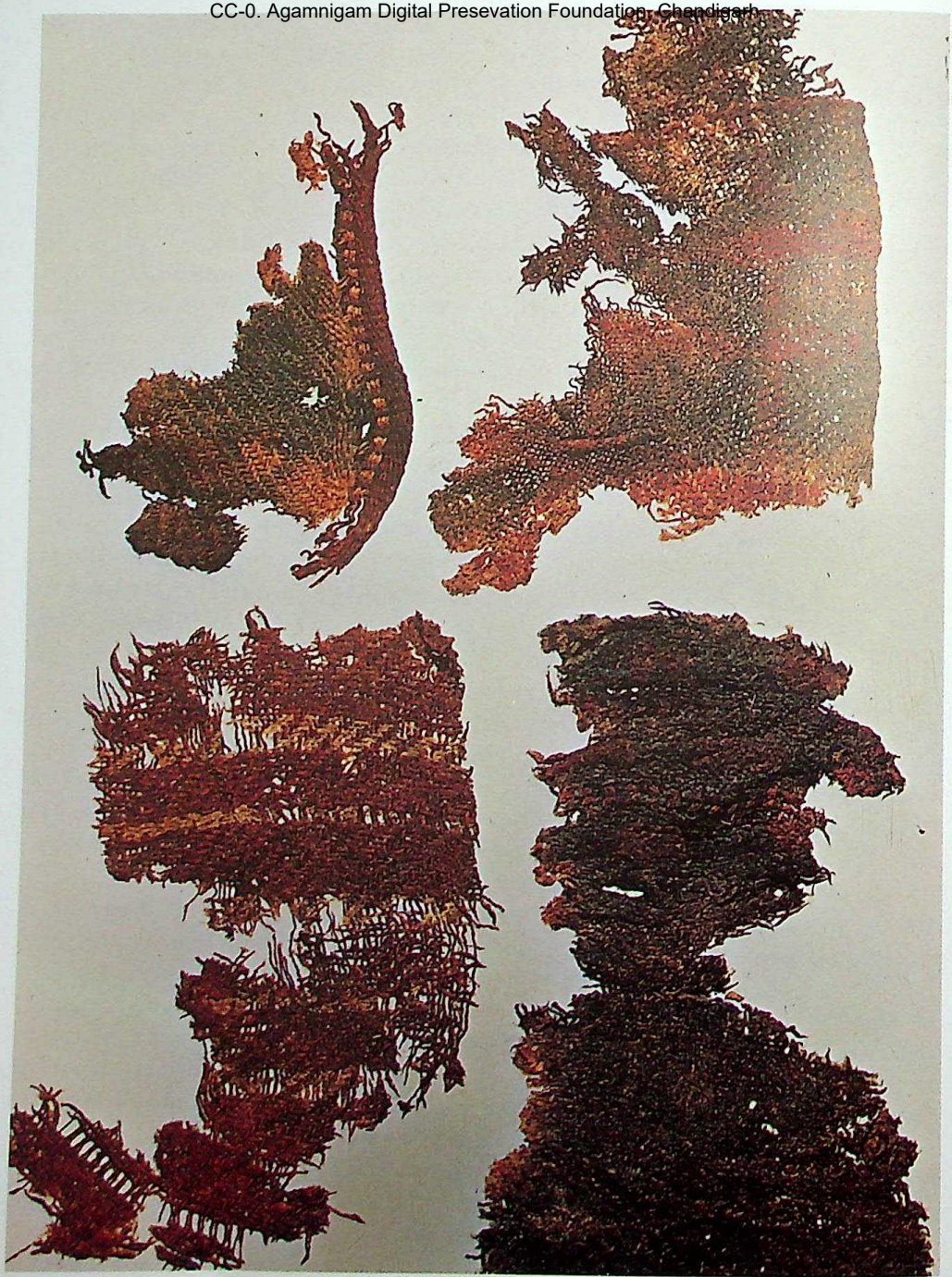

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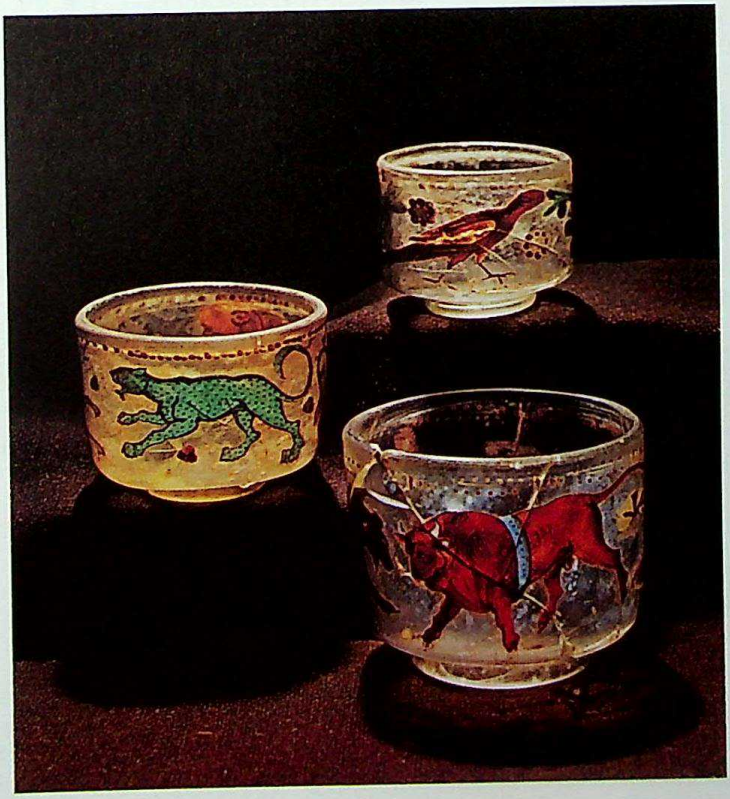
Roman drinking cups of silver from a rich grave at Hoby on Lolland. First century after Christ. Room 16.



Painted Roman glass beakers from the later Roman Iron Age, ca. A.D 200–400, all from graves on Zealand. Room 16.

◀ Dyed remains of women's clothing from a grave at Lønne heath, Jutland, first century A.D. Room 16.

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ted from the mighty Roman Empire. Thus in the grave from Hoby there were found two silver beakers that had been made in Italy shortly before the birth of Christ. On the side of one had been punched the name of its maker, Cheirisophos, a Greek who worked in Rome, and on their base is scored their volume content and the name of their Roman owner, Silius. The reliefs show scenes from the Iliad. In one of them Priam, king of Troy, is shown imploring his enemy, Achilles, to return to him the body of his son. The other shows Philoctetus having his foot washed after being bitten by a poisonous snake, while Odysseus and a helper are trying to steal his bow. The beakers are among the finest known pieces of Roman silver.

How all these fine things reached Denmark is still open to discussion. They may have been transmitted by a process of gift exchange, whereby the ruling houses maintained good relations with one another. On the other hand during the centuries after Christ the provinces of Gaul grew steadily stronger, and it is not impossible that more or less fixed trading connections were established between the Roman provinces and the princes of the North. So many Roman wares of bronze or glass have been found in graves in the Stevns area of Zealand, that one might guess that more or less permanent connections existed with the Roman world, which could in exchange for the luxuries have received hides, leather, etc.

Roman influence was also felt in another way. At about A.D. 200 the first runic inscriptions appear, possibly under the influence of the Latin alphabet. The earliest runic alphabet had 24 letters, and the inscriptions are always short personal names or charms inscribed on weapons or ornaments.

The most important things to see

Room 16. Early and Later Roman Iron Age.

1 Clothing from the early Iron Age. Round-woven piece of cloth from Huldremose, reconstructed as a Roman over-tunic. Skirt, scarf, and skin cape from Huldremose. Skirt from Borremose. Scraps of dyed cloth from the grave of a women buried at Lønne heath, Jutland.

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Hood of sheepskin from Krogens Mølle, Jutland. Gallic cassock from Rønbjerg, Jutland. Iron Age hair, hair-bands, and bonnets.

2 Tools and household articles from early Iron Age villages.

3 Roman imports. Objects of bronze, silver, etc., including the finest collection of painted glasses anywhere in Europe. From graves on Zealand.

4 Rich graves from the Roman Iron age. The graves from Stangerup, Espe, Juellinge, Dollerup, and Hoby (cf. main text) are from the early Roman period, those from Nordrup, Varpelev, Valløby, Hågerup, and Himlingøje are from the later Roman period.

5 Two richly furnished women's graves from Juellinge (Early Roman) and Himlingøje (Later Roman), taken up as they were found. In the grave from Juellinge were found two drinking horns, a Roman glass beaker, a bronze kettle (containing a fermented drink brewed of barley, cranberries, and bog myrtle), a sieve and ladle, ornaments of gold and silver, etc. The grave from Himlingøje held not only a set of Roman glass and bronze vessels, but also a brooch (called a fibula) with one of the oldest runic inscriptions known (about A.D. 200). The deceased had a little piece of gold in her mouth, which may have been meant to pay for her journey to the Land of the Dead.

Peat Bog Finds of the Iron Age

Room 17

Caesar and other classical authors tell that the Celts and Germans had the custom of giving a part of the booty they had won as a thanks offering to the god or gods of war. These offerings were laid down at dedicated places under the open sky, and anyone who ventured to touch what belonged to the gods was severely punished. The custom was already old when the Roman authors described it, and their accounts agree well with what we know from archaeological finds in Denmark.

A whole series of deposits of various size are known from peat bogs in Funen and parts of eastern Jutland and must be interpreted as the spoils of war, dedicated probably to the gods who had helped the victors.

One of the earliest such deposits was found at Hjortspring on the island of Als. A boat and the purposely damaged weapons of a little detachment of warriors were deposited in a small peat bog. The largest object was the boat, which is

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Swords from the weapon deposit in Kragehul bog, Funen. Beginning of fifth century A.D. Room 17.

the oldest found in northern Europe, apart from a number of dugouts. It can be described as a large war canoe 13 meters long and 2 meters wide amidships, propelled by paddling. It was built of five broad planks of lime wood, which were lashed together and caulked with bast and resin. The ribs, which were bound to projections left when the planks were hewn to shape, also supported the thwarts, on which the paddlers sat. No iron was used in the construction of this boat, which had room for 22–24 armed men.

Together with the boat were found about 150 wooden shields, 138 spears of iron and 31 of antler or bone, a number of short swords, and fragments of about 20 coats of chain mail. There were also wooden objects such as lathe turned boxes, ladles, bowls, and platters.

From the centuries following the birth of Christ come several weapon deposits. Those from Vimose near Odense, Kragehul near Assens, Illerup near Skanderborg, Ejsbøl near Haderslev, Nydam in Sundeved, and Thorsbjerg in Angel are the most famous. The greater part of the last two are preserved at Gottorp Castle Museum in Schleswig. The material from Illerup is at the Prehistoric Museum at Moesgård, and the finds from Ejsbøl are at Haderslev Museum.

All the deposits have features in common. Both military and non-military gear is found, and every site was used over a considerable period of time. At some sites it was possible to distinguish the different offerings made at the same place, as though repeated depositions occurred of the equipment taken from beaten armies. At Illerup, Ejsbøl, and Nydam such deposits took place in the third to fifth centuries. At Vimose there may have been a single large offering in the third century, while at Thorsbjerg offerings seem to have continued from the time of Christ until the fifth century.

These deposits give an idea of the composition of an Iron Age army with its weapons, riding gear, clothing, ornaments, coins, board games, household articles, blacksmith's and carpenter's tools, etc. At Nydam there were found three large rowing boats, two of them of oak and one of pine. Only one is preserved. It can be seen at the museum in Schleswig.

Although these discoveries tell of fierce battles, they obviously show the equipment of the vanquished rather

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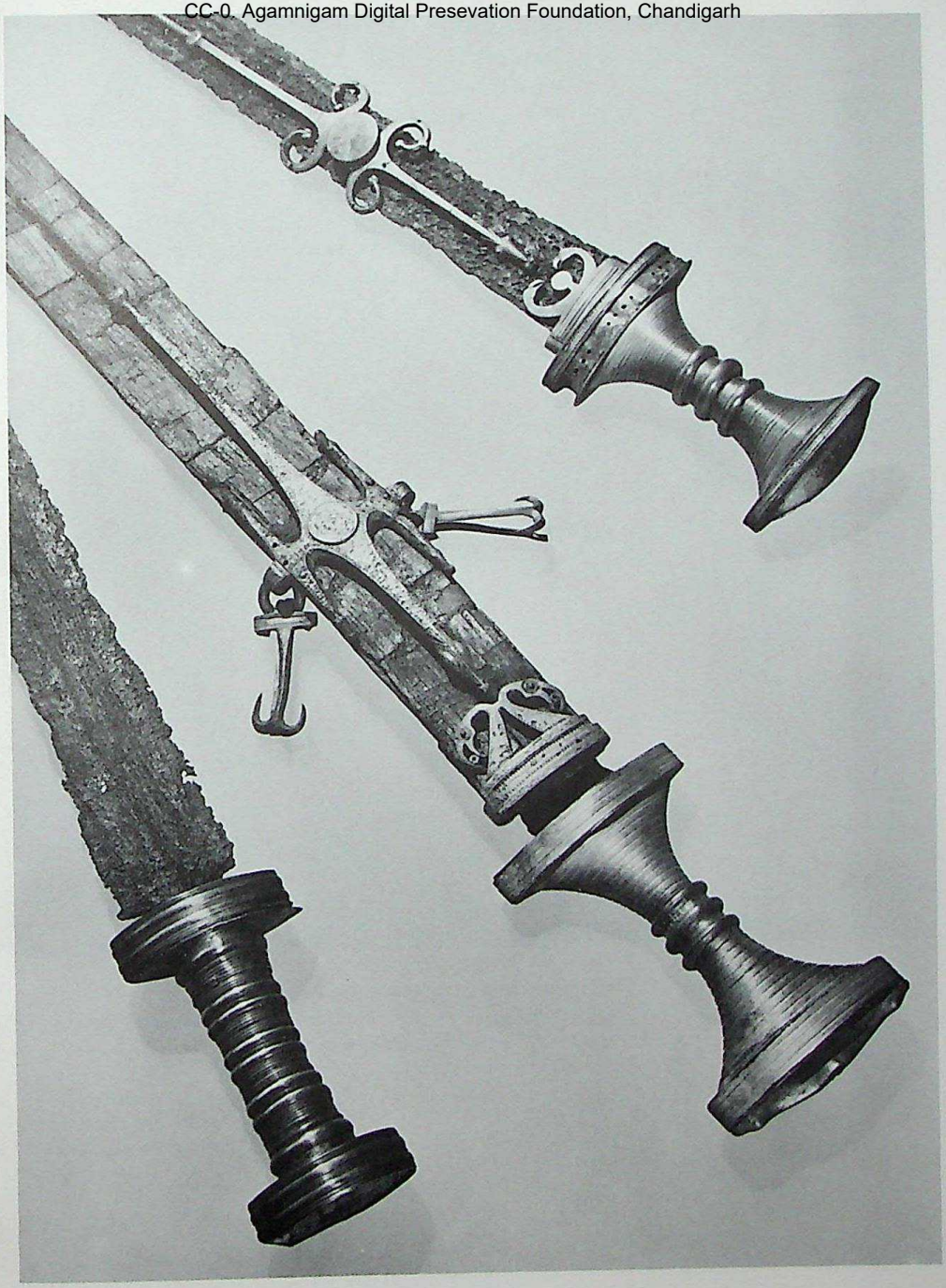

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than of the victors, but we cannot tell who fought with whom or why.

Another group of discoveries are the bog bodies, corpses found in peat deposits either naked or with some few pieces of clothing, such as a leather cloak or a woolen skirt. In some cases all that was found was a dismembered head or foot. Corpses are known only from the acid bogs of Jutland, where they are preserved by the special qualities of the peat. If only skeletons are found in other areas, it is because the soft parts cannot survive. It is difficult to interpret these finds. The choice is between sacrifice, punishment, and accidental death, but the last was no doubt the least common. The first two alternatives are mentioned by the Roman author, Tacitus (1st century A.D.), in his description of the Teutonic peoples. The bog bodies date mainly from the pre-Roman and Roman Iron Ages. Best known among them are those from Grauballe (with cut throat) and from Tollund (strangled). These are exhibited respectively at the Prehistoric Museum, Moesgård, near Århus, and at Silkeborg Museum. The clothing found with bog corpses at Huldremose on Djursland and Borremose in Himmerland gives valuable information about the weaving methods of the period and about women's clothing in the early Iron Age.

The most important things to see

Room 17. Iron Age finds from peat bogs.

1–2 Parts of the Thorsbjerg deposit.
3 Lesser deposits from Trinnemose near Sæby, Porskær near Horsens, Vingsted Mølledam near Vejle, Rynkeby near Kerteminde.
4 Parts of the Nydam deposit.
5 The deposit from Kragehul near Assens.
6–14 A variety of military equipment from Vimose, including chain mail.
16–19 Spears and long bows from Vimose.
21 The earliest runes.

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Dismembered human head from Stidsholt bog in Vendsyssel. The long hair is tied up with a cord in which a table-woven band was held. Early Iron Age. Room 16.

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Agricultural Society in Transition

Room 19. Ca. A.D. 400–800

The four centuries from the end of the Roman Iron Age to the beginning of the Viking period are known in Denmark as the Germanic Iron Age. The finds are surprisingly few, but are enough to indicate that there must have occurred many changes.

It was a period of decline, in whose early part the population seems to have fallen in large parts of Europe. In the sixth century bubonic plague made havoc further south, but soon better times returned. The kingdom of the Franks took shape, and all this had its effect on the countries further to the north. Until recently little was known of the villages of the Germanic period, but excavations are now giving new information about its beginning and end.

At Vorbasse, between Grindsted and Kolding, there has been found a large village, which hardly suggests an economic decline. In the fifth century it covered an area of 12–14 hectares and was characterised by houses up to 44 meters long with room for about 30 cattle. It was obvious that there had occurred important changes in the type of agriculture. The number of animals had been increased and farming techniques must have been significantly improved.

Similar village features have been found elsewhere in Jutland, but there is a regrettable lack of graves from the middle of the period, until they appear again in the eighth century. There may have occurred a further concentration of power and land ownership, with the social stratification becoming more pronounced. The written sources tell us at any rate that there were slaves in Denmark in the 7th century.

The earliest towns also appear, as for example the trading marts found at Ribe and Hedeby, where also various handicrafts were practised. A precondition for this development must have been the existence of a centralised political authority in the area, as also suggested by the border fortifications known as the Danevirke, the earliest phase of which may go right back to the beginning of the eighth century.

Skilled craftsmen carried out their work at the big farms

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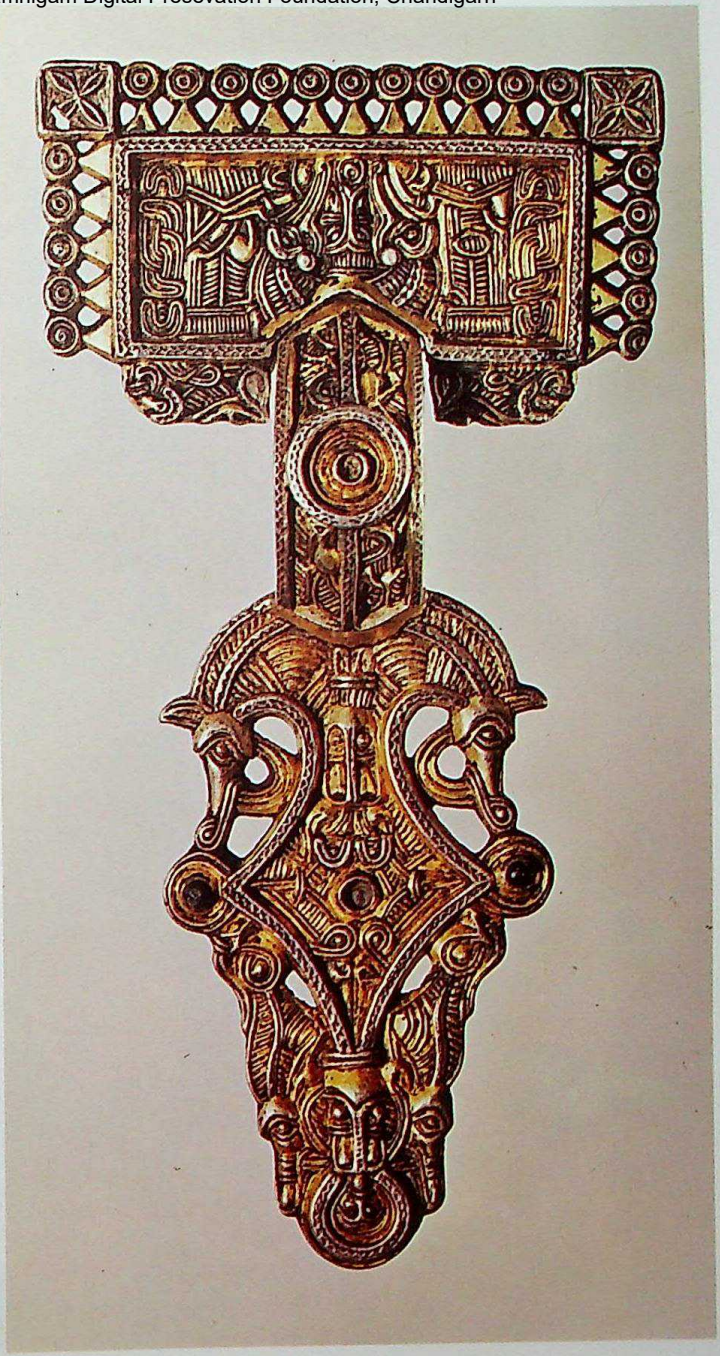
Relief fibula from Gummersmark, eastern Zealand. Early Germanic Iron Age, ca. 400–600 A.D. Room 19.



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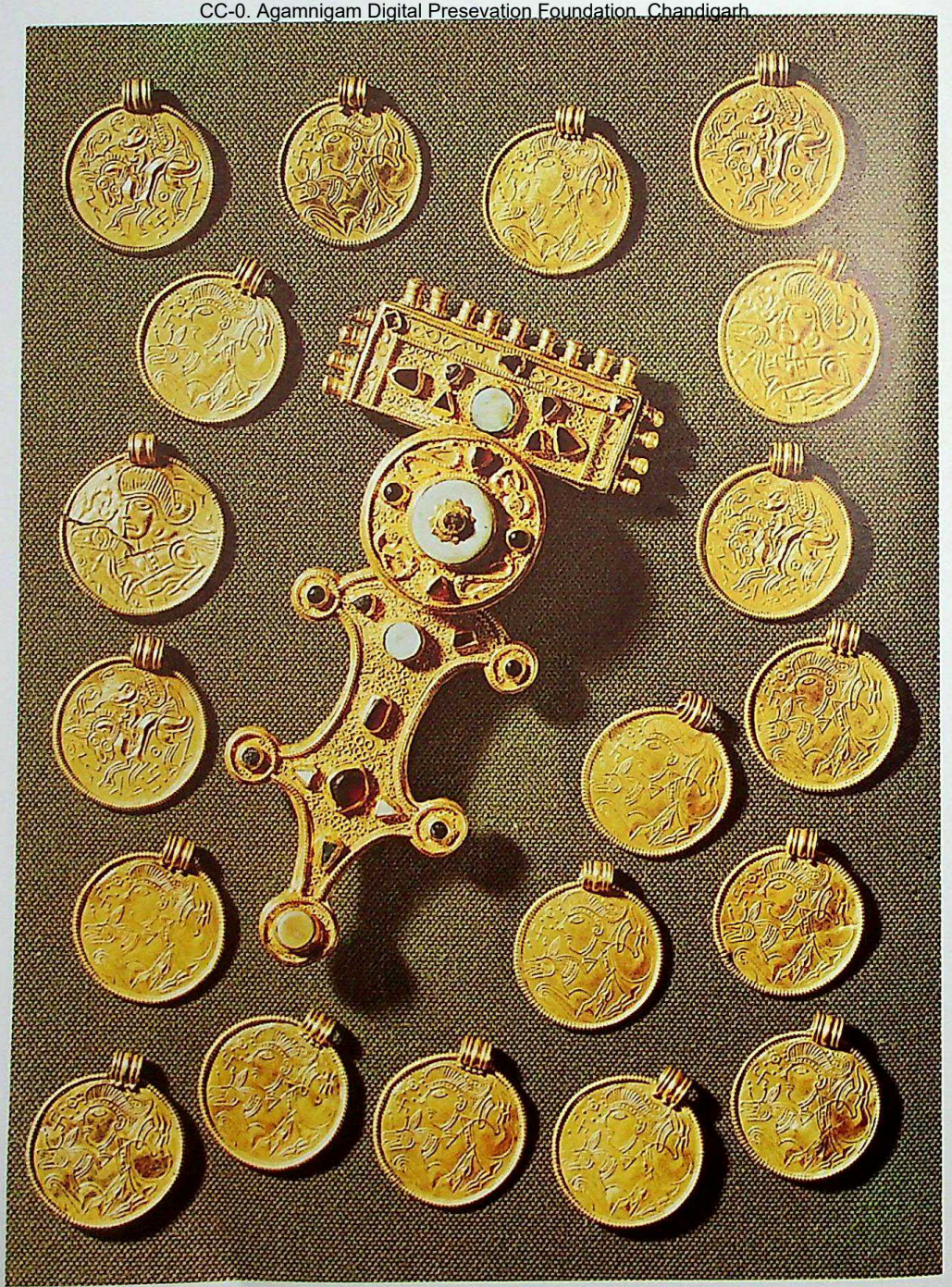

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Neck ring of gold from the early Germanic Iron Age, ca. 400–600 A.D. Found at Hannenov, Falster. Room 19.

in the villages and elsewhere – for instance the goldsmiths, whose skill was very great. They had mastered many techniques, including beating, casting, filigree, granulation, and even striking, as the bracteates show (the Latin word ,,bractea'' means ,,thin plate''). They had thus the technical knowledge necessary to coin money, but the time was not yet ripe. The centralised state, which could have ensured the value of the coinage as legal tender, had not come into existence.

The bracteates are pendant ornaments made of round gold discs with struck patterns and lateral suspension loops. The earlier ones resembled Roman gold medallions, which their ornament clearly shows had inspired them. In the course of time they departed from the Roman models and acquired independent north European patterns and style. The meaning of their decoration is still under discussion, but the runic inscriptions found on many of them show clearly that they functioned as amulets.

The largest closed find of bracteates found to date. From Kitnæs on Zealand. Early Germanic Iron Age, ca. A.D. 400–600. Room 19.

There is more gold from this period than from any other. The source of much of it must have been the enormous wealth with which the Roman emperors tried to buy off the attacks of the northern barbarians. Finds of gold are most

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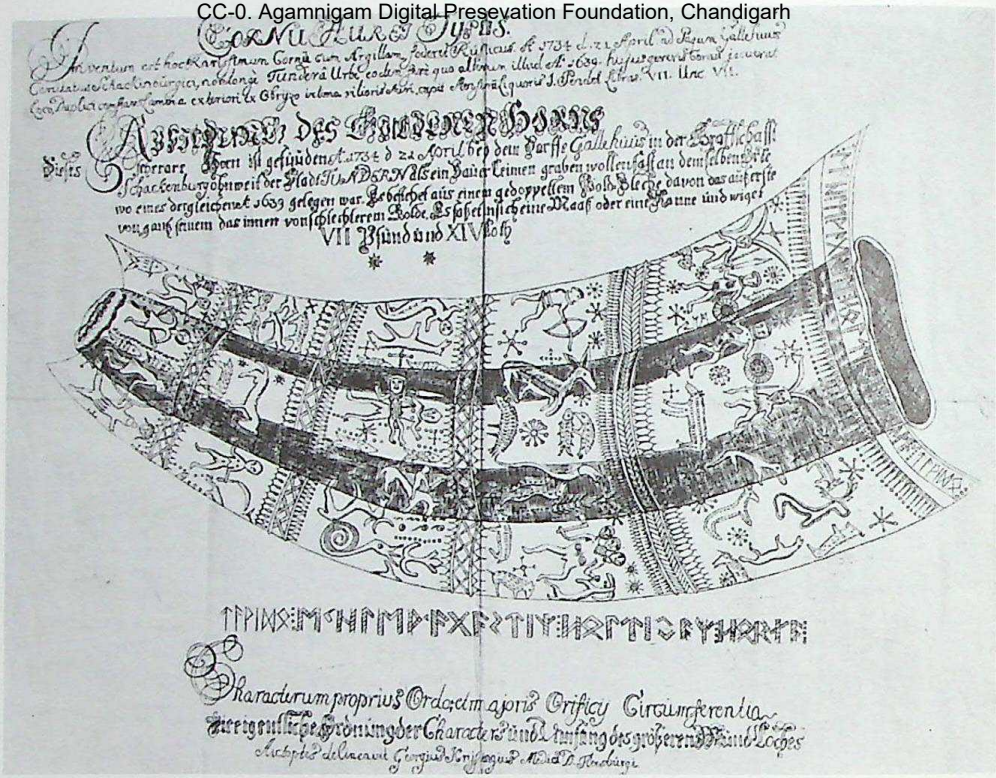
CORNU AUREI TYPUS.
Dieses Horn ist gefunden Anno 1734 d 20 April bey dem Dorffe Gallehuus in der Lorattischaff
VII Pfund und XIV Loth
Characterum proprius Ordo, cum ejus Critica Circumferentia

The shorter of the gold horns as illustrated in Georg Krysing's book Cornu Aurei Typus, 1734.

numerous from the early part of the Germanic period. When gold later became scarcer in Europe in a period of political unquiet, it was also felt here, and the finds became much fewer.

No doubt the most celebrated treasure from Danish prehistory was the two horns from Gallehus, that were found in the same field in 1639 and 1734. The son of Christian IV had a mount fitted to close the end of one of them, so that he could drink out of it on festive occasions. Later the horns were placed in the Royal Art Cabinet, whence they were stolen in 1802 and straight away melted down to make counterfeit money. After that they were known only from inaccurate old drawings, and the reconstructions seen in the exhibition, which were made in the middle of the last century and presented by King Frederick VII, can only give a rough impression of the wonderful objects that once existed.

The horns were native work of the 5th century. The short

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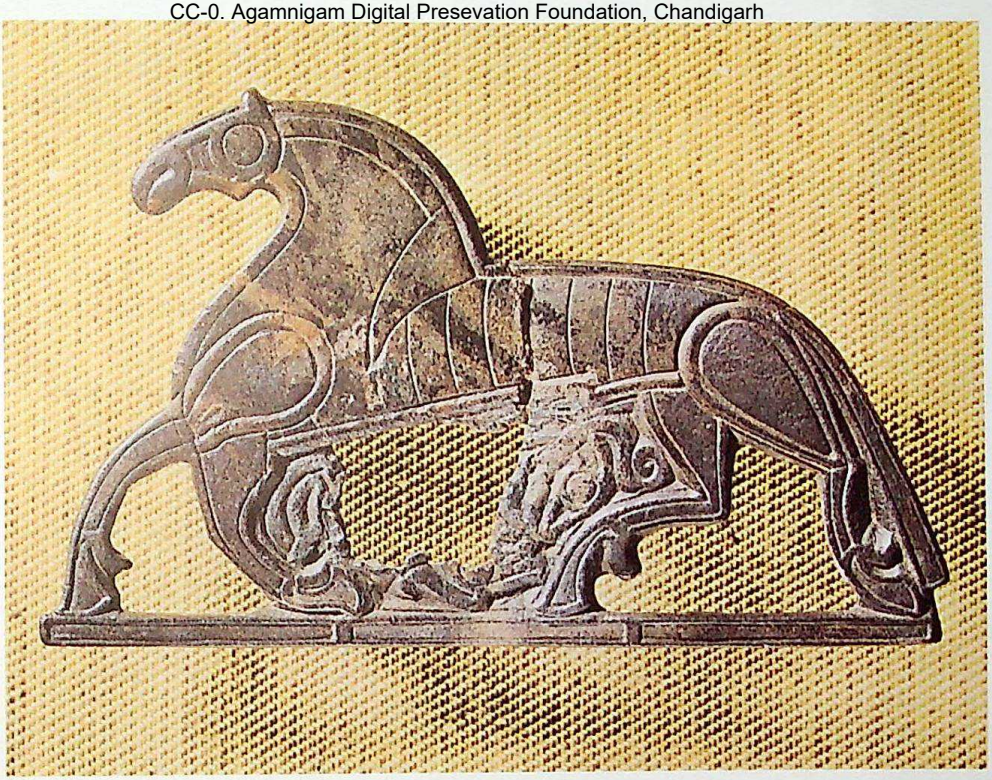

Dress ornament in the shape of a horse. From the period A.D. 600–800, found at Veggerslev on Djursland. Room 19.

horn had in runic letters around the rim the inscription, ,,I, Lægæst, son of Holt, made the horn''. Both horns consisted of a smooth inner cone covered by a series of outer sections with applied and chased figures and other signs and ornaments which had been chased or punched. The meaning of the figures is unknown, but they no doubt show gods and mythical scenes of the period.

Only a small part of the period's wealth ended up in graves. Rich barrow burials and cemeteries like those of the prosperous farmers and chiefs of central Sweden are not found in Denmark. An exception is a rich grave from Kyndby in north-west Zealand. Other noteworthy cemeteries were found at Vindinge south of Roskilde and Lindholm Høje near Ålborg, and at many places on Bornholm.

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Room 19. Germanic Iron Age.

5 Kvarmløse, central Zealand – grave with two fibulae of sheet-silver. Finds from the cemetery at Kyndby, Horns herred, including a richly ornamented sword. Nyrup, Odsherred, woman's grave with glass beaker, many beads of amber and glass, a silver hairpin, fibulae, gold finger-rings, a bronze chain, Roman gold and silver coins.

8–9 Finds from cemeteries on Bornholm. Selected grave groups from Bækkegård, Lousgård, and Melsted. Some of the objects are noteworthy for their fine animal ornament.

11–18 Objects of gold. Fibulae, scabbard mounts, „bride-gold", bracteates, etc. Several of the large torques were made of definite weights, which were multiples of a unit weighing 27 grammes. The Kitnæs hoard, the largest bracteate hoard found so far.

19 The silver treasure from Høstentorp, Zealand, with objects of Germanic and late Roman origin.

20 Double-edged sword from Blidsø, western Zealand, with animal ornament on the pommel.

21 From Rude Eskildstrup bog, south-west Zealand. A seated wooden figure, no doubt originally with base. Probably a deity. The figure wears a triple neck ornament resembling certain large Swedish gold torques of the Germanic period. This may show that the large torques were male ornaments.

22 Bronze figure found at Tømmerby, near Skanderborg. It represents a male figure wearing a long lower garment and a cloak. Late Roman art from the 4th or 5th century. The figure represents a Roman emperor, perhaps Constantine the Great.

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THE VIKING AGE

Rooms 20–22. Ca. A.D. 800–1000

At about A.D. 800 the light of History began to dawn over Denmark. The Scandinavian peoples began to appear in the Frankish and Anglo-Saxon chronicles – though mainly as pirates and plunderers of monasteries. The age of the Vikings was thus a semi-historical period, whose written sources are to be found mainly in the foreign countries with which the Vikings came into contact. They give a possibly biassed picture of the peoples of Scandinavia, but a fairer impression can be gained if the written and archaeological sources are combined. These show us a country becoming a political force, a society in rapid transition, poised between East and West.

A cautious estimate would place the population of the country at the end of the Viking period at 700.000. Considering the level at which agricultural technology stood, this was a high figure, and the Viking period was indeed a time of

Silver-inlaid axe from Mammen near Viborg. Viking period, ca. 10th century. Room 20.

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The usual set of female ornaments in the Viking period. The ones here are of gilded bronze and date from the 10th century. Room 20.

expansion, when forests were cleared, and new land ploughed and villages founded.

Recent excavations like those at Sædding, Trabjerg, Omgård, and Vorbasse have given some idea of the character of rural settlemt. Many villages appear to have been founded right back in the 8th century, but they reached their greatest development later. Some of the villages were quite extensive, with numerous houses placed around an open central space corresponding to the village greens of medieval times. There must have been some degree of communal control of agriculture in villages of this type – just as in the Middle Ages.

At other sites have been found large farms consisting of several buildings, apparently including dwelling-house, byre, barn, cattle enclosure, sheds, post-built granaries, etc.

The country was no doubt still ruled by land-owning families, rich chieftains, and kinglets, but the unification of the Danish kingdom was not far away, and took place in the tenth century, perhaps after a number of abortive attempts in earlier centuries.

The graves give a good impression of the period's social system. Burial forms and customs varied a good deal, but both cremation and inhumation burial were known. The latter predominated in the later part of the period. The amount of grave goods varied considerably, as was only natural in a society with as large social differences as that of the Vikings. Princely graves were naturally rare. The most famous are the so-called Royal Barrows at Jelling, between which stands a runic stone, raised by Gorm the Old for his wife, Thyra. In the same place stands the most splendid of all runic stones, that raised for Gorm and Thyra by their son, Harald Bluetooth, in the runes of which he also tells of his own achievements.

The Norwegian and Swedish custom of boat burial is not so common in Denmark, but one was found in a chiefly grave at Ladby on Funen. Its substitute in the form of a boat shaped stone setting is common, being most found near the sea and inlets.

The finds from the graves show in a concrete form the wide trade connections of the time – Arabic and European

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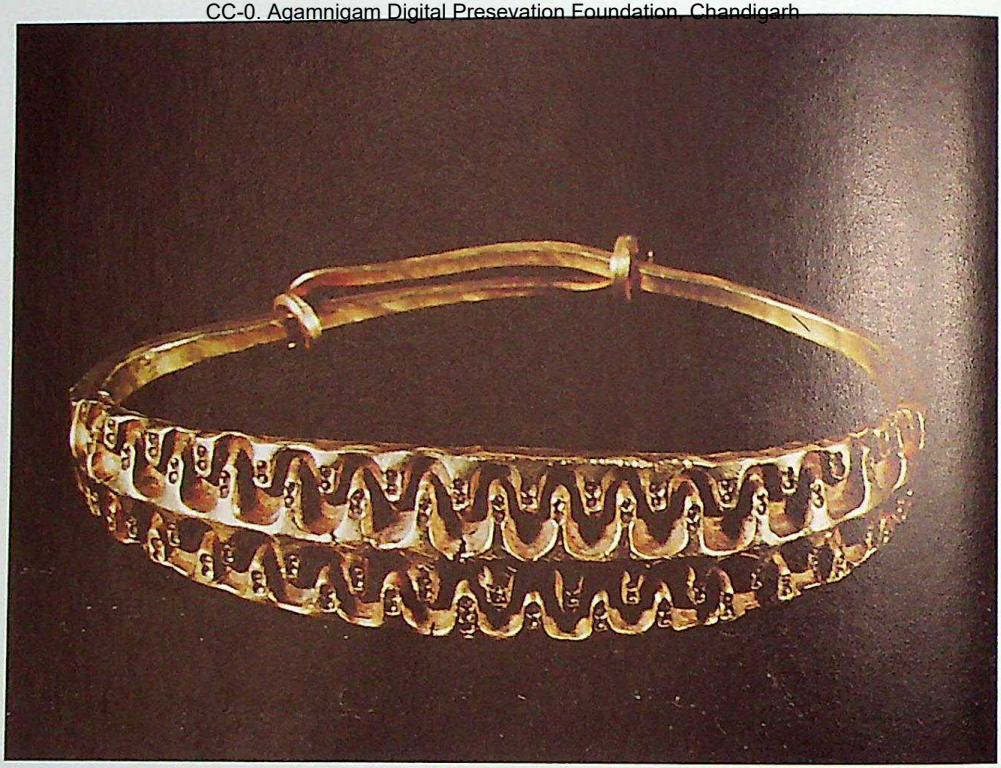

Gold armring from the Viking period, ca. A.D. 800–1000. Found near Halleby river at Ornum on Zealand.

coins, silk fabrics, semi-precious stones, many-coloured glass beads, imported weapons, cloth with threads of gold, and much else.

Gold was still known, but during the Viking period silver became the commonest precious metal, presumably because of the very active trade connections existing with the Arab countries, where rich deposits of silver were being exploited. Sweden and the extensive net of trading connections along the Russian rivers were undoubtedly the intermediaries. Silver is found mostly in buried treasures, which show how often there must have been disorders and civil war.

Payment was still made by weight, and many hoards consist therefore of fragments of coins or ornaments that had been cut and weighed out. Coins were acquired in large numbers through trade or raiding, or as danegeld (the name given to the payments received by the Vikings to make them cease their attacks or withdraw). They were treated just like

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Detail of the ornament on parts of harness from Søllested on Funen. Viking period. 10th century. Room 20.

any other silver, were cut up and used for payment by weight.

One of the clearest expressions of the increasing importance of exchange of goods was the trading town of Hedeby, which then lay in Danish territory. Hedeby was one of the first towns founded in Scandinavia. The growth of towns was an early capitalist development, in so far as the idea was profit based on the concentration of labour. It seems that the coining of money began at Hedeby right back in the 800's, using the coins minted by Charlemange at Dorestad as prototype; but a more systematic production had to await the time of Sven Forkbeard and the assistance of Anglo-Saxon minters.

Towns were also founded at other places, for example at Århus and Ribe. Just as at Hedeby the presence of artisans indicates an increase in local traffic, which accompanied the foreign trade.

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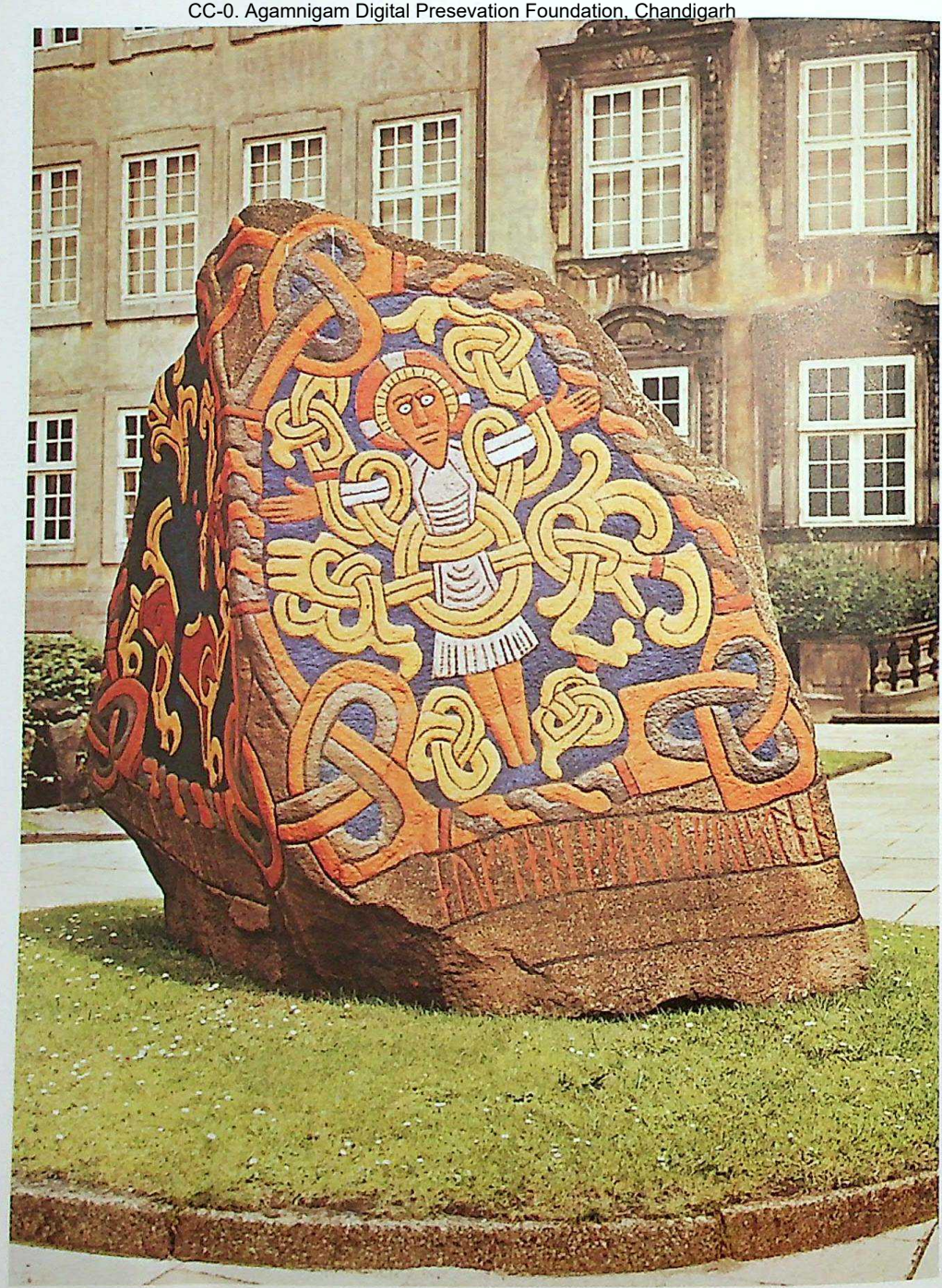

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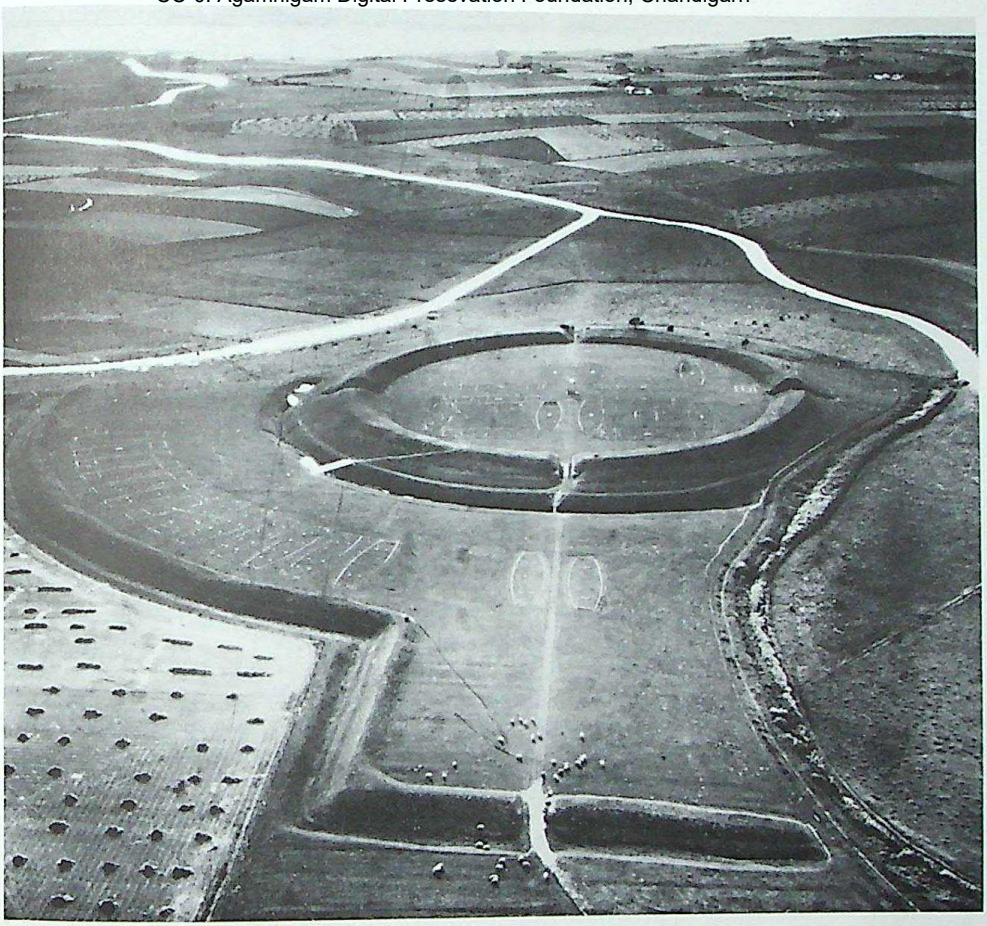

Air photograph of the Viking fortress at Trelleborg, near Slagelse.

As already said, a condition for many of the developments of the Viking period was the concentration of power in fewer and fewer hands, a development clearly illustrated by the monument raised by Harald Bluetooth at Jelling. The inscription reads, ,,Harald King had made these writings for Gorm, his father and for Thyra, his mother, that Harald who won for himself all Denmark and Norway and made the Danes Christians".

Cast of the large Jelling stone as exhibited in the museum garden. The original stands at Jelling church in Jutland.

When Harald ,,won for himself all Denmark" it can only mean that what was then called ,,all Denmark" had previously been split up into smaller kingdoms or chieftainships. As a sympton of the new development we find at various

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places in the country big circular fortresses from Harald's reign – Aggersborg on the Limfjord, Fyrkat at Hobro, and Trelleborg near Slagelse. Recent research has argued that these fortifications must have been founded by a central monarchy who used them to assert control over the subdued people. All three stand at sites that are easily defended, and were directed against the surrounding population. Apparently the latter soon came to order, for not long after they were built the fortresses were taken over by civilians.

The formation of a unified state brought Danish Prehistory to an end. The country now became a kingdom and the way was open for the entry of Christian culture, which meant the beginning of historical times.

The most important things to see

Room 20. Viking period.

1 Swords – the main weapon of the Vikings. Also scattered finds of weights, amulets, gaming pieces, combs, rivets, moulds, etc. Blacksmith's tools from Borre Sømose on Møn.

3 Søllested, Funen. A richly furnished grave with bronze bucket and bowl, iron chain, leather belt with silver studs, bone comb, etc. The ornamental mounts from part of a draught harness exhibited in case 19 are from the same grave.

7 Mammen, central Jutland. Grave of a chief buried in a coffin of oak planks. The corpse was clad in wool and silk and lay on pillows of down. The clothing included silk fabrics with inwoven gold and an embroidered cloak. Two axes lay at the feet of the corpse, one with a pattern inlaid in silver. On the lid of the coffin lay a bronze cauldron, two wooden buckets, a large wax candle, and a lump of wax. Another grave a Mammen contained parts of a bronze bowl, some gilded bronze mounts from a wooden chest, a die for pressing ornament, and the gilded mounts from a draught harness set up on new wood in case 19.

11–16 and 20–23 Hoards, mainly of silver, from the Viking age. The few gold hoards include one from Vester Vedsted, the weights of whose gold rings were multiples of the unit of weight current at the time, and from Hornelund, near Varde, which contained two magnificent round brooches of gold showing the influence of contemporary French goldsmith's work, though undoubtedly made at home.

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Room 21.

1 Viking ship.

2 A fast, narrow war vessel was found in a grave mound at Ladby on Funen. An important man and many horses and dogs had been buried in it. The grave had been plundered in early times, and not much is preserved of the furnishings.

3–4 Viking trade connections – sailing routes and colonies. Coins, etc. show that Viking Denmark was familiar with products with origins ranging from France in the west to central Asia in the east. The settlement in France was mainly Danish as was the Danelaw in England. Scotland and Ireland were mainly Norwegian spheres of interest. Iceland was settled from Norway and Greenland from Iceland. The unsuccessful attempts to colonise America issued from Greenland.

5 Hedeby was one of Scandinavia's main trading towns, where merchants from all parts of the world met. This led further to the settlement of craftsmen in the town. The plan shows a part of the settlement near the stream that ran through it. A model of some houses from Hedeby can be seen in the central case.

6 Relief map of the Danevirke, the name given to the complex of fortifications that defended Denmark's southern border in the Viking period. The written sources mention the Danish king, Godfred, in the 9th century as the first to construct these earthworks, but perhaps some are in fact even earlier.

8 Denmark's two largest prehistoric barrows, the ,,Royal barrows`` north and south of Jelling church. In the north barrow a burial chamber with walls, floor, and roof of oaken planks was found in 1820. A plank set on edge divided the chamber into two parts. It had been plundered and all that was found was some carved and painted pieces of wood, the mounts of a chest, two small bronze birds, and a little silver beaker. In 1941–42 it was discovered that the south barrow had not contained any grave. Under the barrow were found a number of large standing stones, the remains of an earlier monument, perhaps a ship-shaped stone setting. South of the church stands King Harald's runestone (a painted copy can be seen in the museum garden).

10–11 The Viking fortress of Trelleborg in western Zealand was built at a place to which access was difficult, at the confluence of the streams, Tudeå and Vorbyå. Within an impressive circular bank were built 16 houses, standing in four squares. To the east was a bailey with a further 15 houses and a cemetery. The houses have all long since vanished, but can be recognised from the rows of post-holes in the subsoil. During the excavation many objects of 10th and 11th century date were found. Aggersborg on the northern shore of Limfjorden was similarly constructed but larger. A third, similar fortification was found at Fyrkat, near Hobro. All three must have been built in the second half of the 10th century.

12 Model of Trelleborg.

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15 Copy of a chest, last seen in the possession of the Cathedral Treasury at Cammin, Germany, but disappeared since the Second World War. The ornamentation is in the Mammen style and shows that the chest was made somewhere in south Scandinavia at about the year 1000. It has the same shape as a „Trelleborg house" and therefore played a part when the reconstruction of the houses was under consideration.

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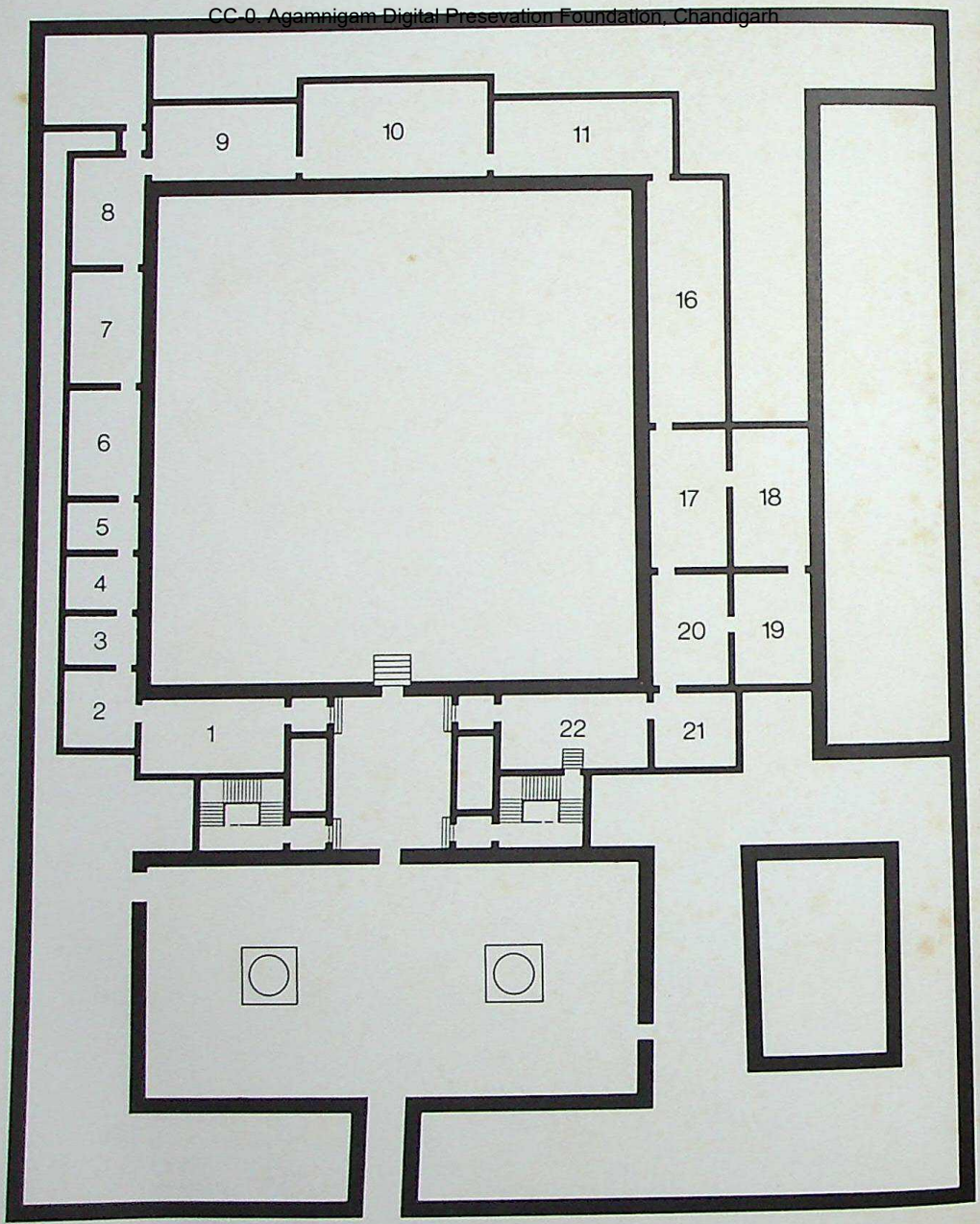

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ARCHAEOLOGICAL TIME TABLE

		1050
IRON AGE	Viking Age	800
	Germanic Iron Age	400 A.D.
	Roman Iron Age	0
	Pre-Roman Age	500 B.C.
BRONZE AGE	Late Bronze Age	1000
	Early Bronze Age	1800
STONE AGE FARMERS	Dagger Period	2400
	Single Grave Culture	2800
	Middle Neolithic Funnel Beaker Culture	3200
	Early Neolithic Funnel Beaker Culture	4200
STONE AGE HUNTERS	Ertebølle Culture	5200
	Kongemose Culture	6000 (?)
	Maglemose Culture	7400 (?)
	Bromme Culture	10000 (?)

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